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No contribution reaching the Editor later than 10th December next can appear in the January Number of MIND.

In consequence of the continued increase in the cost of production it will be necessary to raise the subscription price of MIND from 12/- to 16/- a year, and of single numbers from 4/- to 4/6. The price to members of the Association will remain the same.

NEW SERIES. No. 112.

OCTOBER, 1919.

MIND

A QUARTERLY REVIEW

OF
PSYCHOLOGY AND PHILOSOPHY.

EDITED BY
PROF. G. F. STOUT,

WITH THE CO-OPERATION OF PROFESSOR E. B. TITCHENER, AMERICAN EDITORIAL REPRESENTATIVE, AND OF PROFESSOR WARD, PROFESSOR PRINGLE-PATTISON, DAVID MORRISON, M.A., AND OTHER MEMBERS OF AN ADVISORY COMMITTEE.

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PUBLISHED FOR THE MIND ASSOCIATION BY
MACMILLAN & CO., LIMITED,
ST. MARTIN'S STREET, LONDON, W.C. 2.

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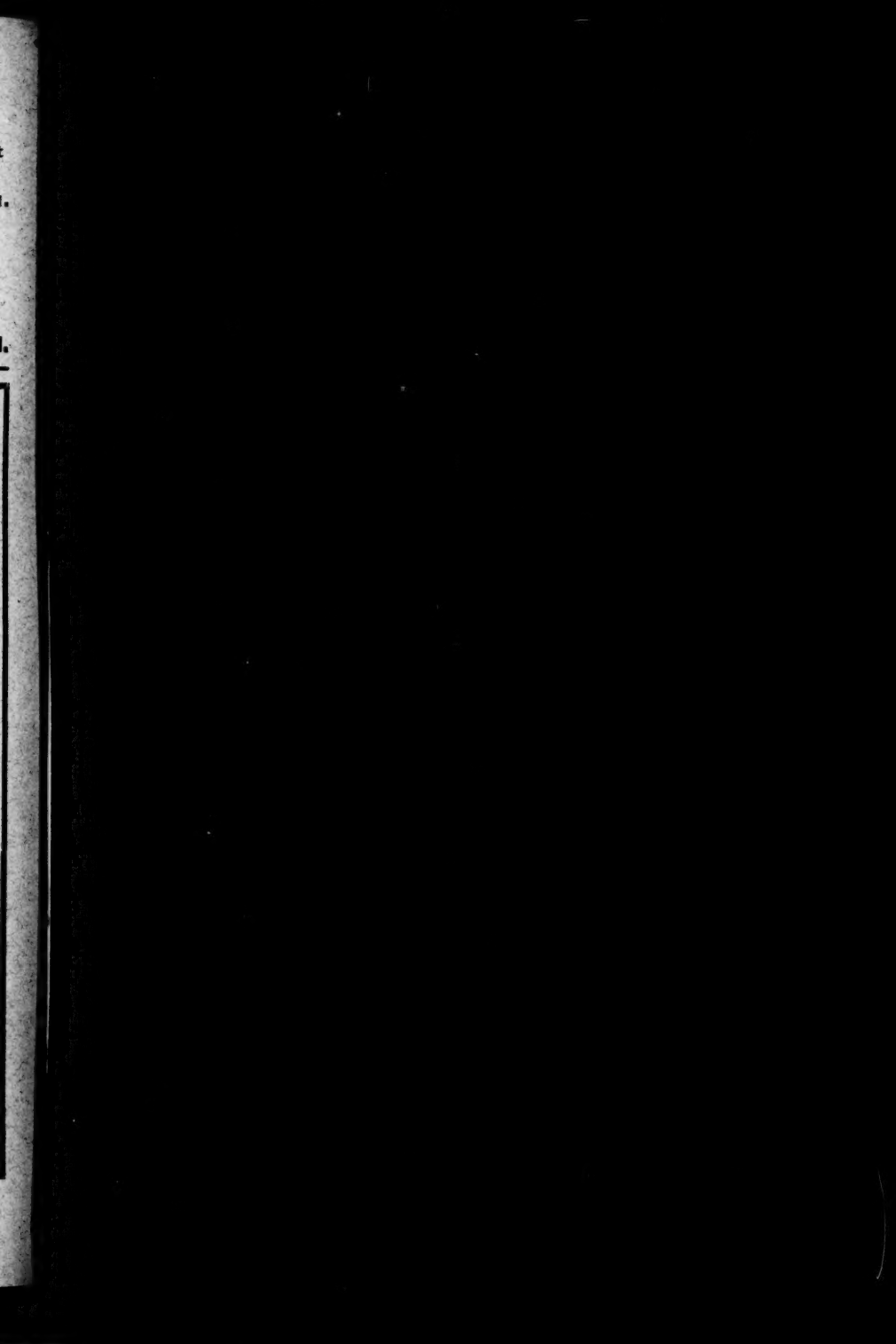
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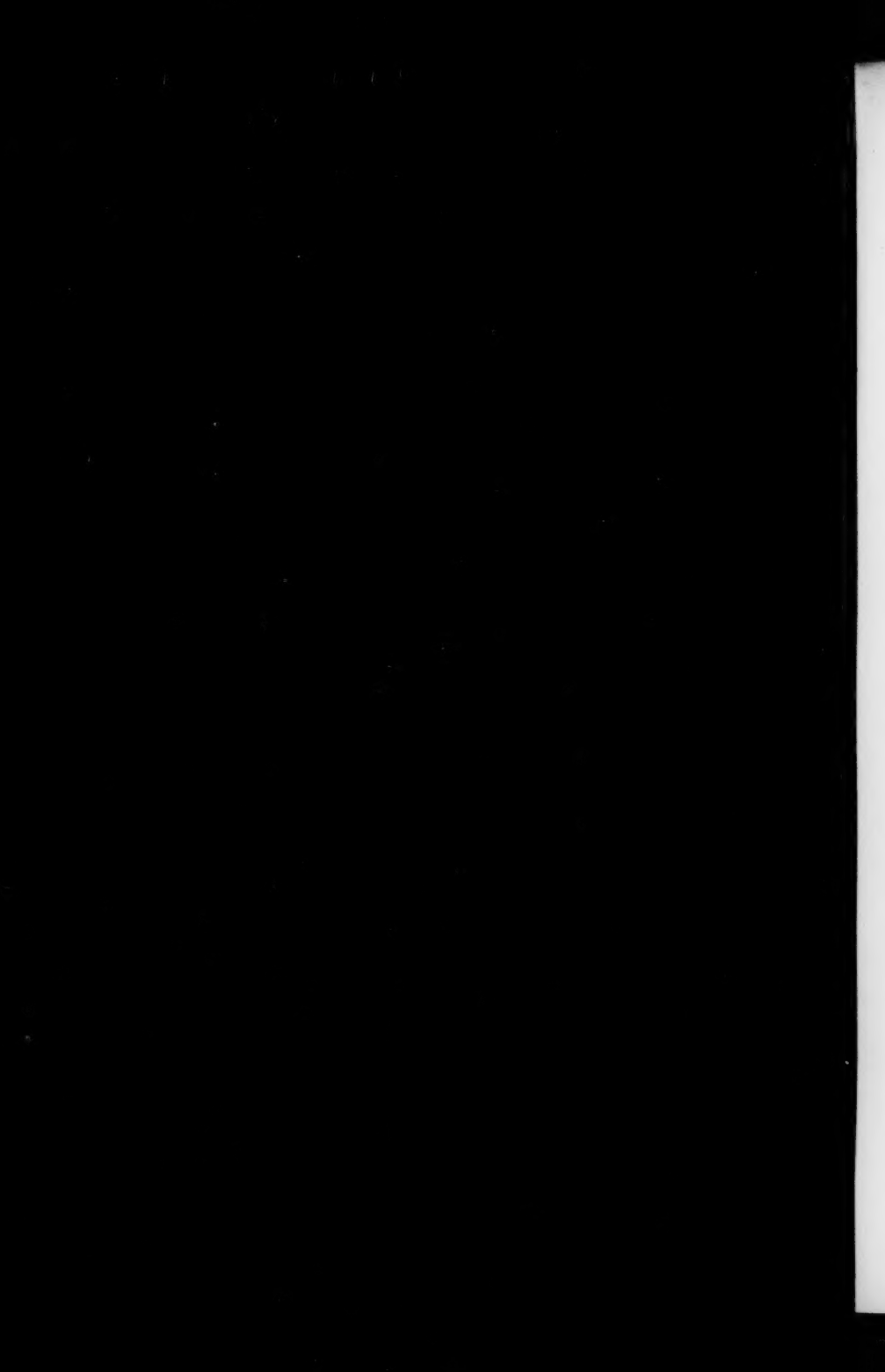
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I.—INTROSPECTION.

BY J. LAIRD.

It is written in most text-books on psychology that there are two main sources of psychological evidence, introspective and interpretative. The psychologist may either examine his own mind by directing his attention to its working, or he may endeavour to translate the behaviour of other men and of the animals into terms whose meaning is obtained through introspection. Plainly, if these statements are true, the validity of psychological conclusions must depend on the validity of introspection, and, if they are false, most psychologists have misunderstood their business. Psychologists, therefore, must be prepared to stand on their defence in this fundamental matter whenever the value of introspective evidence is seriously challenged. At the present time, this challenge is sounded from many different quarters, although it is much less formidable in some cases than in others.

Indeed, some of the objections to introspection seem to depend upon the taste and aspirations of the objector rather than upon the logical arguments he can muster. Students of comparative psychology, for instance, naturally dislike introspective methods and interpretations into introspective terms. They can tell how an animal responds, not how it feels. They can measure the flow of a dog's saliva at the sound of a dinner-gong or the time in which a blind rat learns to thread its way through a maze, and this is the only type of event they can measure with precision. Even if the animal seems to be as intelligent as the Elberfeld horses were supposed to be, the state of the animal's mind must remain a matter of conjecture. Comparative psychologists, therefore, prefer to keep

to methods which give objectively certain results, and to study human behaviour in the same way as animal response, in order that their measurements and other statistics may be strictly comparable.

A preference of this kind, however, does not affect the principle of the usual psychological methods. At the best it gives a hint that the study of mere behaviour is more likely to be useful and informing than the study of psychology. This hint is frequently supplemented by a variety of dubious arguments. In the first place, we are told that introspective pre-suppositions and ideals have hitherto impeded honest inquiry into behaviour, that the exact study of animal behaviour opens a promising field which has been very inadequately explored, and that young investigators are more likely to discover important new truths here than if they follow the beaten track of traditional psychology. This cheerful outlook becomes still brighter when we remember that laboratory appliances and technique have recently advanced very notably in this sphere. In the second place, psychologists are asked to reflect upon the contrast between the new methods for studying behaviour and the old introspective psychology. With the new methods science enters, clad in a livery which all the world has come to know and respect. The exact technique of the laboratory receives due recognition, verifiable statistics are carefully compiled, objective proof is forthcoming. The old methods, on the other hand, are survivals from the time when mere reflexion was supposed to be superior to experiment, and neither Tycho Brahe nor Galileo nor Huyghens had come to teach the world a more excellent way. In a word, the old methods and the new are separated by the great gulf which divides pure science from mere literature. To clinch the argument, psychologists are sometimes informed that introspective methods do not obtain results that can be utilised by legislators or social reformers under modern conditions.

These arguments certainly show that the usual psychological methods differ from those employed in the other natural sciences. Indeed the alleged uselessness of current psychology is assumed to follow from the mere fact of this difference; and that is scarcely an argument. Those who employ the method of introspection maintain that from the nature of the case each human being can observe his own mind only, and consequently that the methods of psychology must differ fundamentally from those of the other natural sciences, since in their case there is assumed to be a common object which many observers can investigate independently and can measure by methods which presuppose a common instrument of measure-

ment acting uniformly. The mere assertion of this consequence does not prove either that introspection is impossible or that it is useless.

Certainly, if one and the same thing, this mind or that, could be studied by both methods, those methods which have been so successfully used by the other natural sciences might fairly be presumed to be the best for psychological purposes also. But this identification is precisely the point in dispute. The reactions of the organism may be measured and recorded in this way, but are these reactions the same thing as the mental experiences which are the object of introspection? It is surely preposterous to assume this without argument. Indeed the objector himself assumes the contrary. The objector maintains that each psychologist of the usual type is simply a sort of Mrs. Gummidge, and consequently impervious to argument. That good lady, as the reader will recollect, was accustomed to say that she 'felt it more' than the rest of the Peggotty family when the weather was cold, or when she had any other excuse for being 'contrairy'. The only verifiable fact, however, would be whether Mrs. Gummidge 'showed it more'. If so, the objector has the choice of two alternatives. Either what Mrs. Gummidge shows and what she feels are precisely identical or they are not. If not, then *cadit questio*. There are two different fields of study. If so, then it is hard to see why introspective methods should have worked such mischief in comparative psychology or why it should be impossible to tell how an animal feels. In a word it is impossible to impugn either the accuracy or the importance of introspective psychology on the ground that something other than the mind (*i.e.*, behaviour) ought to be studied in another way.

We may pass, then, to more serious objections of principle. The introspective attitude, of course, is so familiar, that there can be no doubts concerning its existence. No one, for instance, could deny that Shelley's lines to the Ravine of Arve describe an introspective attitude:—

—Dizzy Ravine! And when I gaze on thee
I seem as in a trance sublime and strange
To muse on my own separate phantasy,
My own, my human mind, which passively
Now renders and receives fast influencings,
Holding an unremitting interchange
With the clear universe of things around.

The only disputable questions in the case concern the interpretation of this attitude, not its existence. If psychology is a science based primarily upon introspection, what sort of

process is introspection? What manner of tidings does it convey? Can these tidings be regarded as trustworthy after a careful scrutiny into the problems in theory of knowledge which are implied?

Introspective evidence usually purports to be a descriptive account of a certain matter of fact, the passions and operations of the mind. If so, and unless reason can be shown to the contrary, it seems both legitimate and necessary to assume that introspection has the same general characteristics as any other mental process by means of which we are able to apprehend the truth of fact. It must be a kind of cognition, and, more precisely, a kind of observation implying direct acquaintance with its object. The thesis of this paper is that introspection ought to be so regarded in spite of the numerous objections to this view which are either expressed or implied in contemporary psychology and philosophy.

On the whole, these objections may be subdivided most conveniently under three heads. In the first place it may be argued that introspection as above interpreted is an impossible feat since there can be no such act of direct acquaintance with the mind. A second objection states that the act of introspection necessarily falsifies since it transforms into an object what is essentially not an object. In the third place there is a series of objections connected with the opinion of certain of the American New Realists that neither the Ego nor consciousness are distinctive existent entities.

I.

The analysis of cognition implies in the last resort that the knowing mind is directly confronted with reality. There must be some direct apprehension, and a difference between the process of apprehension and the apprehended fact. Objects which are known indirectly or by description presuppose direct apprehension as much as any others, since any mediate apprehension requires the unmediated apprehension of the data for, and of the links in, the chain of mediation. The difference between process and object, it is true, may be hard to demonstrate in many cases. Sometimes there is clearly an existential difference, as in the present recollection of a former event or in the repeated apprehension of precisely the same proposition. In other cases it is much more disputable whether the existence of the two can be severed, but there must be a difference if the cognitive relation holds. The cognitive relation is never one of identity.

We have to ask another question, then: We want to know

whether there are good reasons for denying the possibility of this relation in the particular instance of introspection. Can the process of introspection be different from the fact it observes, and can it be directly confronted with that fact?

When introspection is interpreted in this way, the analysis of it is broadly similar to that of observation through the senses.¹ Both species of observation are regarded as processes of direct inspection of existent fact. Indeed, the analysis gives no reason for supposing that the kind of inspection is different. The distinctive peculiarities of introspection, together with its range and limits, might well be due to the character of the object apprehended in introspection, and to the special conditions under which introspection is possible. The most obvious objection, therefore, is based upon the denial of any real analogy between these two species of observation. This objection, however, is frequently stated in an irrelevant form. The parallel treatment of introspection and sensory

¹ Mr. Norman Smith, in his *Commentary to Kant's Critique*, asserts in two places (p. 148 and pp. 292-293) that 'no great thinker except Locke has attempted to interpret inner consciousness on the analogy of the senses'. If this sweeping generalisation were accurate it might, of course, be used as an *argumentum ad verecundiam*, and work towards the undoing of little thinkers not sufficiently presumptuous to be content with the solitary *aegis* of Locke. I cannot help feeling doubtful about it, however. For example, I wonder whether Mr. Smith interpreted Descartes rightly at the time he made this statement. The argument in the Second Meditation appears to me to be strangely opposed to it, and I am strengthened in this opinion by considering, *e.g.*, Arnauld's defence of the Cartesian position against Malebranche's view that we know ourselves by a 'sentiment intérieur' only (*Des vraies et des fausses idées*, chap. xxiii., § 8). Perhaps I may quote Descartes, *Principes*, Part I., § 9: "Par le mot de penser, j'entends tout ce qui se fait en nous de telle sorte que nous l'appercvons immédiatement par nous-mêmes; c'est pourquoi non seulement entendre, vouloir, imaginer, mais aussi sentir, est la même chose ici que penser," and *ibid.*, § 11: "Or, afin de savoir comment la connaissance que nous avons de notre pensée, précède celle que nous avons du corps, et qu'elle est incomparablement plus évidente . . . il est certain que nous en remarquons beaucoup plus en notre pensée, qu'en aucune autre chose que ce puisse être; d'autant qu'il n'y a rien qui nous fasse connaître quoi que ce soit, qui ne nous fasse encore plus certainement connaître notre pensée."

Mr. Smith's exposition, of course, refers primarily to Kant, but his argument on p. 293 certainly implies that it is always a confusion to suppose that there is even an analogy between 'inner sense' and 'self-conscious reflexion'. Moreover, it is hard to understand his comments unless he means that 'the doctrine which is mainly responsible for Kant's theory of inner sense, namely, that there can be no awareness of awareness, but only of existences which are objective,' is true and therefore decisive against the analogy. If this be his meaning it is surely permissible to ask why 'self-conscious reflexion' implies that there can be no awareness of awareness, and indeed how such reflexion could occur at all in the absence of self-cognition of this kind.

observation does not imply that there are no differences between them. The important question is whether there is or is not in both cases direct acquaintance with a particular existent, and there is no need to press the parallel in any other sense. Accordingly it is irrelevant to argue that there is no evidence for the existence of a distinctive sense-organ in the case of introspection, or to say with Comte that the observing organ cannot observe itself. A sense-organ does not observe anything since only the mind observes, and there is no need to assume that every specific variety of cognition requires a specific organ. If it did there might very well be a specific introspective area in the cortex. Our mere ignorance whether there is such an area or not would not therefore justify us in denying the possibility of introspection. But it is needless to pursue these questions since they have no important bearing on the issue.

The more important arguments seem to be that introspection cannot be interpreted in the way suggested, since in its case observer and observed are one; that an infinite regress would be implied if, *per impossibile*, an act of the mind could really contemplate itself; and that all mental processes are in fact 'enjoyments' which for that reason cannot be contemplated.

Since cognition and, in particular, direct inspection presuppose a difference between process and object, the first of these objections might readily appear to be insuperable. A little reflexion shows, however, that the sense in which it is correct to say that observer and observed are one in the case of introspection is much too general to supply a basis for a conclusive objection. The process of introspection, in any given instance, is part of the same mind as the processes which it observes. These parts, however, need not be the same, and there is no good reason for supposing that they ever are the same. It is clear that if introspection is a process of cognition it cannot be identical with its object when that object is not a cognitive process but a feeling or a conation. Again, in the case of retrospection, process and object are events occurring at different times. In both these instances it is accurate to say that observer and observed are one if the meaning is that observing and being observed belong to one and the same mind. But the process of introspection and its object are not identical in either.

The difficulties connected with the introspection of a cognitive act which occurs simultaneously with the introspection of it would seem more formidable, but even these do not seem to be decisive. It is impossible for a cognitive act to be

its own object, but why should it be impossible for one cognitive act to be aware of another which occurs simultaneously with it? Many psychologists, it is true, deny the possibility of simultaneous introspection altogether, and maintain that the process is always one of memory. This, if it were true, would evade every difficulty of the type we are considering, but the evasion, besides being theoretically unnecessary, would cost too dear. In the first place, it does not seem to be in harmony with the facts. We certainly appear to ourselves to be capable of observing our mental processes at the time of their occurrence and not merely in memory. If we are mistaken in this opinion, at any rate the interval that has elapsed must be too short to be appreciable, and there is no means of proving empirically that there has been such an interval. Moreover, if this theory were true, introspection would always be a process of remembering what had not been observed, and this seems highly improbable. The fact of retrospection, indeed, tends to suggest a precisely opposite view. How can there be retrospection unless we are at least dimly aware of the character of our mental processes at the time when they occur?

The fear of an infinite regress is even less excusable in the case of introspection than elsewhere. Doubtless, if an introspective act may apprehend another cognitive act, a second introspective act might be capable of observing the first, and so on indefinitely, until the empirical limitations of human minds and the tediousness and uselessness of the procedure put a stop to it. An implication of this sort, however, would be a valid objection only if an infinite regress were logically required. There would be a vicious infinite if the occurrence of the process of introspection logically presupposed the introspection of this introspection, and so *ad infinitum*. Otherwise the infinite process, if it could occur, would be entirely innocuous.

The argument that all mental processes are 'enjoyments' which, on that account, cannot be 'contemplated' seems to be a true description of fact with regard to what it asserts, and a mere dogma with regard to what it denies. Mental processes are 'enjoyments' whose being, if they refer to anything, is to refer to something not themselves. Thus the species of 'enjoyment' which is called cognition refers not to itself but to the object which it apprehends. This, however, does not prove that such a process is never itself apprehensible. It merely proves that if the act is apprehended it must be apprehended by another act.

To put the argument otherwise, this account of 'enjoyments' would be tenable only if all enjoyments were intrinsically incapable of being contemplated. If so, they could not be contemplated even in memory. In fact, however, the contemplation of our past experiences in memory seems to be not only possible but even the rule. All recollections, properly speaking, are personal. We recollect not only this or the other objective event, but our former attitude towards it, our former experience of it. The former event and the former enjoyments appear to be apprehended in precisely the same way; and, if that is true, it follows that our enjoyments are not intrinsically incapable of being contemplated. Moreover, there are certain qualities and relationships which are common to enjoyments and to non-enjoyments. Temporal transience, for instance, is common to both and apprehended in the same way in both. But it is plainly impossible that lapse of time should be a common object in this fashion, if enjoyments can never be contemplated and if non-enjoyments must always be contemplated when they appear at all.

These arguments, then, do not prove the impossibility of introspection regarded as a cognitive process directly acquainted with other mental processes. The objector, accordingly, has to take refuge in a simple denial, and to assert that his introspection is not of this kind. This assertion cannot, of course, be directly refuted, but there are considerations which show that it is probably mistaken.

If introspection cannot be regarded as an act of contemplation, what alternative is there? What is the meaning of introspection if it is not cognition?

The alternative seems to depend upon certain untenable assumptions. The objector assumes that a conscious process, simply because it is conscious, must be just what it feels like. Consequently all that is necessary for the appreciation of it is that it should be allowed to exist in its proper character, and be saved from confusion with other concurrent processes. Thus in attending to the states of our own minds we do not really contemplate them. We merely divert our attention from extraneous objects, and immerse our minds in themselves. This, it is held, is the only way in which we can become our true minds, and such a process of becoming is therefore and necessarily a sufficient revelation of what our minds are in themselves.

There is a certain plausibility in this theory, but any initial presumptions in its favour are speedily dispelled by reflexion. Certainly we are what we are, and possibly our psychical existence is precisely identical with our conscious

existence. But if the mere existence of any conscious process is therefore and necessarily a complete revelation of its character and content, where is the need for introspection at all, and how is there room for any possible mistake or dubiety? Why must the psychologist, with great pains and labour, become immersed in himself in this fashion if haply he may achieve some insight into what he really is? He is bound to be what he is without any effort whatever, and if his psychical existence reveals the whole of its character by the mere fact of existing, it would seem to follow that if the introspective attitude differs from the non-introspective, the difference must consist in the fact that the man has become different. In that case introspection would necessarily defeat its own aims, whereas, on the usual theory, there is merely a risk of failure from this cause. Attention to our own minds *may* alter their current. It is hard to suppose that it must. And if it must, how is it possible to allow for the error?

In any case, if there is danger of error in attending to our minds there is no possibility of truth without attending to them. The gods do not give us this gift without requiring our labour in exchange for it. Accordingly, since we have to attend to our minds in order to know them, the important question is whether there is any essential difference between the attention so directed and the attention to other things. There does not seem to be any essential difference. In both cases the attention is directed towards something, in both cases it fixes its object and dwells upon it, in both cases it is the only means of obtaining a direct inspection which has some claim to be trusted.

We may conclude, then, that there is no intrinsic absurdity in supposing that introspection is a process of direct cognitive acquaintance with our own minds, and that there is strong evidence supporting the view that it is, in fact, a process of this kind. This conclusion, of course, does not imply that introspection is infallible. On the contrary, it is usually supposed to be very difficult and very fallible. Indeed, psychologists often give the impression that no one is really competent to make any precise and detailed assertions on introspective grounds unless he belongs to the select *coterie* of those who have devoted many years to practising the art. Be that as it may, there is at least no justification for the claim of infallibility unless with regard to very general assertions such as the statement that doubting differs from believing or repugnance from delight. And the reason is plain. The relation of acquaintance never presupposes any sort of likeness or identity between the process of knowing and the

thing known. Such considerations are entirely irrelevant, and consequently mistakes are just as likely to arise in the cognition of a cognition or of some other mental process as in the cognition of objects which are not mental at all.

II.

The principal argument under this head is the very common one that the mind *as known* is an object, whereas in fact it is a subject. This contention might be argued on several different assumptions, and one of the possible arguments would seem to be identical with the view already considered, *i.e.*, that an enjoyment cannot be contemplated. A separate discussion of it is required, however, owing to the fact that it is usually defended by arguments which depend wholly upon special assumptions in the theory of knowledge. The conclusion of the contention is always that the subject can never be known as it is, since if it is regarded as an object of knowledge its character is therefore transformed.

Plainly the force and the very meaning of this contention depend upon the way in which the terms subject and object are interpreted. Thus the argument is valid if the distinction between the knowing process and its object is interpreted as a mere difference of aspect within psychical fact. The subject in this case could never become an object without a change of aspect which would be equivalent to a change of character. The felt mass would have to become a significant idea. Again, if knowledge is regarded as essentially representative, its immediate object can be only a symbol of fact, and not fact itself, so that the subject as known would be a mere representative of the real subject. In the third place, the so-called subject-object duality might easily be interpreted in a way which made it theoretically impossible for the subject to be an object of knowledge. If subject and object are regarded as abstractions in themselves whose whole being is merely to be complementary to one another, and if they are complementary precisely on account of their inalienable distinction from one another, then the subject would be meaningless as an object. Even if Ferrier's less radical way of putting the theory were true, and object *plus* subject were the *minimum scibile per se*, it is hard to see how this conclusion could be avoided. Ferrier's theory certainly implies that the subject can never be the total object of cognition under any circumstances. What is more, his argument that it could be known at all (in terms of his general theory), seems to be little besides the irrelevant assertion that in point

of fact it is known.¹ If, as he asserts, everything that I know is known to me *mecum*, then I myself must be known to myself *mecum*; and if this circumstance does not affect my knowledge of myself it should not affect my knowledge of anything else.

If the need for brevity could be accounted a sufficient excuse for dealing with a wide subject in a few words, it would be permissible to dismiss these theories as inadequate or inconclusive. The first of them assumes that the whole problem of cognition can be explained by distinguishing those presentations or presentational elements which have a symbolic character from those which have not. This distinction, however, cannot be the essence of the cognitive relation since all presentations, whether or not they can be used as signs, must be presented to something, and since the fact of being presented is the principal element in the case. Similarly the representative theory is clearly inadequate. Knowledge cannot consist wholly in representation since the knowledge that there is representation implies the knowledge both of the representative and of the thing it represents. The third theory, in its turn, suffers from the same defect. There must, of course, be a subject-object duality in any piece of knowing, but how is it possible to know this elementary truth without knowing both subject and object and their relation? It does not follow, of course, that the subject-term is ever found in isolation, and the kernel of Ferrier's contention seems to be that it is never isolated. This, however, is irrelevant. A thing may be known as it is in itself without being isolable, provided that it is capable of being recognised in its proper character and functions, and distinguished from its inseparable accompaniments or correlatives. Indeed, it is only in this sense that the process of cognition can be apprehended introspectively. An act of cognition is nothing unless it refers to an object, and when we attend to it we must attend to it in this specific reference. Thus if introspection be symbolised by *I*, the act of cognition introspectively observed by *A*, and the object of this act by *O*, the total object of introspection is (*ArO*) where *r* signifies the cognitive relation. But we cannot be aware of (*ArO*) without being aware of its constituents *A*, *r*, and *O*, and each of them, in that case, is an object of cognition; i.e., *Ir(ArO)* implies *IrA*.

If these theories of the subject-object relation in knowledge are rejected, the implied consequence that direct acquaintance

¹ *Institutes of Metaphysic*, Prop. III.

with the subject is impossible falls with them.¹ Apart from such theories the objection vanishes. To be directly ac-

¹The welcome appearance of Dr. Ward's *Psychological Principles* makes me regret very keenly that I did not pay more explicit attention to the arguments in his earlier works at the time when I wrote this paper. It is too late now to try to make amends for this defect. But I feel I must offer some criticisms (even if I have to bury them in the narrow cell of a footnote), because, to my sorrow, the view I am defending is fundamentally opposed to his.

If I understand him correctly, Dr. Ward maintains that psychology is the science of individual experience (p. 28). This *experience* must ultimately be due to the commerce of two *non-experiences*, subject and object. For psychology, therefore, subject and object in themselves are nothing but assumptions (inexpugnable ones, however), since, on any theory, they must be known merely inferentially or 'intellectually' (p. 381), if they are known at all. Within experience, however (Dr. Ward says), there is a duality of subjective and objective. The subjective side consists of *feeling* [i.e., pleasure-pain] and *attention* [i.e., "being mentally active, active enough at least to 'receive impressions'" (p. 49)]. The objective side consists of presentations (sensory and motor), and these form *continua* which together constitute the 'psychoplasm' (p. 412).

Personally, I should maintain that if the psychoplasm is necessarily distinct from the objects to which (according to this account) it is partly due, then any intellectual inference from the psychoplasm to such objects would be baseless (either in metaphysics or anywhere else). I am more concerned, however, with what Dr. Ward calls 'the subjective side of experience' and should maintain that this subjective side of experience is literally and precisely the subject itself. I assume this in the text when I speak of introspective observation of the 'subject' or the 'mind'. It is plain, at least, that Dr. Ward's refutation of 'attempts to extrude the Ego' (pp. 34-41) have no bearing whatsoever upon such a view, since his arguments are simply and solely a refutation of presentationism, i.e., of the view that *presentations* are so many tubs capable of standing on their own bottoms.

Be that as it may, I find myself much more hopelessly lost and embroiled in another part of Dr. Ward's teaching. According to him, feeling and attention are not presented at all, and 'we know of them mediately through their effects; we do not *know* them immediately in themselves' (p. 58). [The context shows that *know* means 'observe' or 'have presented'.] Thus the whole of the 'subjective side of experience' is merely a matter of inference from presentations.

It must be remembered that 'attention' in Dr. Ward's sense of the word includes *perceiving, inferring, desiring, striving*, and so forth (p. 60), in so far as these can be distinguished from presentations. In a word, it includes nearly every specific psychological fact capable of being described as an 'operation of the mind'. Now I ask whether it is credible that I apprehend the difference between (let us say) striving, loving, and judging, *merely* by inference from my presentations? I should have a lot to infer, should I not?—the whole of my mind, *tout court*. By what species of reasoning and by what flights of intellect should I be entitled to infer with certainty that so many undeniable differences exist on the subjective side of my experience? According to Dr. Ward's theory all these palpable living differences would be so many hypothetical correlates of presentational differences, and, for my own peculiar, I doubt very much whether his general theory would permit me even to infer with him that there is a

quainted with anything, and to be directly acquainted with that thing 'as an object,' express precisely and numerically the same fact. The subject 'as known' or 'as an object' is just the subject itself. If we are acquainted with it then we are acquainted with *it*, and no qualification of this statement is permissible unless the acquaintance is mistaken, or the word 'object,' for purposes of technical convenience, is defined in some restricted sense. Nothing can be transformed in any sense whatever simply owing to the fact that it is known. To suppose the contrary is scepticism.

Lest this statement should appear unduly dogmatic, it is advisable to consider two possible rejoinders. The first rejoinder states that while it is scepticism to maintain that a thing 'as known' is *therefore* different from that thing as it is in itself, still some things 'as known' differ in this way. In Mill's words "there is no appeal from the human faculties generally, but there is an appeal from one human faculty to another".¹ Thus the mind 'as known' may be different from the mind itself, although there is no such difference with regard to other things when they are known.

If this rejoinder were well founded, it would surely be better to say that the mind cannot be known at all, since that is really the trend of the argument. In any case it would be necessary to give a reason for this remarkable difference between the cognition of the mind and the cognition of other things. Such a reason can never be found by a mere appeal to the nature of knowledge, and if introspection is direct acquaintance or simple inspection there is no possible way of establishing any such difference.

difference between feeling and attention. I should be very hard pressed if I tried to distinguish with certainty the precise presentational differences which presumably flow from each of these, and I am quite certain that the inferences which I actually draw in this matter are due to the fact that I know in advance with greater certainty than I know anything else that, e.g., believing or willing is not the same thing as pleasure or pain.

Dr. Ward says (p. 245) that 'feeling as such is, so to put it, matter of *being* rather than of direct knowledge; and all that we *know* about it we know either from its antecedents or from its consequents in presentation'. We may all agree, I take it, that the whole subjective side of experience is 'matter of being' in this sense. Because it is primarily *thinking* it is not primarily *thought of*; and it is 'matter of being' (I should say) because this subjective side of experience is just the subject itself. This 'matter of being,' I think, is at the same time the whole of our consciousness; and consequently it is the true and proper object of psychology. But these statements of fact (or, if you will, arguments or dogmas) do not imply that it is impossible to attend to our thinking directly when we try; and my thesis is that this operation (and *not* the attention to presentations) is introspection and is possible.

¹ *System of Logic*, Book III., chap. xxi.

The second possible rejoinder is either innocuous or else depends on a mere definition. We may, and for many reasons we must, distinguish between a thing in so far as we are acquainted with it, and the same thing as it would be apprehended, let us say, by an omniscient knower. This distinction, however, only calls attention to the patent fact that human minds are limited. It does not require us to suppose that there is any difference at all in those respects in which the thing really is apprehended. Again, the word 'object' may be defined in a special technical sense, and understood to mean, for example, something abiding which cannot be directly apprehended at any time but can be known only through a complicated process of intellectual construction and inference. In this sense no 'object' can be observed, whether the mind or a physical thing. Introspection cannot supply more than the data for such an inference; sense-perception is limited to momentary sensibles. This, however, is but a verbal issue. It has to do with the most convenient meaning to be assigned to the word 'object,' and with nothing else of importance.

III.

The theory that consciousness is not a distinctive entity is not necessarily irreconcilable with a certain partial recognition of introspective evidence. Those who hold this view, however, usually disparage introspection on the ground that it is not needed. They claim that it has no peculiar message to convey, and that the facts ascertained by its means can be ascertained with better assurance in other ways.

According to this doctrine, consciousness is not a thing but a function. When we examine our consciousness, it is argued, we find no specific common quality in it. Our consciousness contains things seen and things remembered, friends and clothes and a bank account, images, ideals, and universals. These constituents of consciousness have no common element, except the fact that all of them have some sort of being. They have not, however, a peculiar kind of being. They are not composed of a distinctive kind of stuff, still less of a stuff which is different from that of which physical things are made. On the contrary these self-same constituents of consciousness are also physical things when certain other of their relations are taken into account. The consciousness of any one of us is simply a cross-section of the real, and its limits are determined by the fact that it is selected. The cross-section itself is determined entirely by its relations, and

according to James at any rate, these relations do not refer to any entity such as the mind or Ego, but are simply functions of this or the other conscious content. These contents in one set of relations are 'inner,' in another set they are 'outer'.

According to this view the 'inner world' consists entirely of certain contents or objects of consciousness or, in other words, of presentations. The further argument is that these presentations do not either together or singly constitute a distinctive mental substance. Hence in apprehending them introspectively we do not apprehend a peculiar kind of being, the mind, which cannot be observed in any other way. This same being can also be studied by objective methods of the usual kind. And the final conclusion is that objective methods of study are in almost all cases preferable to subjective or introspective ones.

If the assumptions of this argument were correct, its conclusion might be conceded in principle, although there are many points of detail in which introspective methods would seem to be the only feasible ones on any assumptions whatsoever. The main assumption of the argument, however, seems wholly untenable. The argument is quite baseless unless consciousness and the objects of consciousness (or presentations) are not merely coextensive but literally identical. On this assumption it must be entirely meaningless to affirm that we are conscious *of* presentations, but that the presentations are not our consciousness of them. In point of fact, however, this assertion, so far from being meaningless, is the plain truth of the matter.

The point is so fundamental that it is very easily overlooked. Indeed, it is ignored so persistently on so many philosophical theories that there may be no way of stating it which brings general conviction. Still, this attempt must be made. It is surely manifest that all the objects of which we have consciousness have at least one peculiar circumstance in common. They all *appear*. And the fact that they appear can never be deduced from the fact that they exist or subsist.

It is true that all objects of which we can think must appear to us. The so-called 'inner' and 'outer' worlds, therefore, do not differ in this particular. But they do not appear simply because they *are*, whether or not they are what they appear to be. Being is one thing, appearing or being apprehended is another thing.

Now the fact that a thing appears implies that it appears to something. This fact may be described, correctly enough, as a function or relation of the thing which appears in

connexion with another term. But this function or relation is possible in connexion with one kind of term only. It requires a term which apprehends. This apprehending term is or is part of the cognitive mind. It is the mind as a whole if the mind is correctly interpreted as a mere monad. It is part of the mind, if the mind is a continuum composed of, or at least containing, a plurality of acts of apprehension and other experiences. The principle of this analysis is not affected by the detailed description of the mind, nor is it affected by the answer to the question whether anything exists which is not a mind or not mental. The point is that the two statements 'X appears' and 'X apprehends or is capable of apprehending' are quite distinct. If the second is true of everything then everything is a mind. If it is true of some things only, then these are the only things which are minds.

This argument may be strengthened by the mention of another circumstance. Wherever there is appearance there may be error, and there could not be error unless there were appearance. On the other hand, error could not occur if the fact of being were simply identical with the fact of appearance. It is quite useless to argue, for instance, that mistakes are merely misfits or conflicts of opposing forces. There is a conflict of forces when waves beat upon a pier, but neither the waves nor the pier are in error. Gloves sometimes do not fit, but it does not follow that either glove or hand is making a mistake, or that either has a 'lie in the soul'. Error arises in these and other cases only when the glove is thought to fit when in point of fact it does not, or when the waves or the pier are falsely supposed to have some characteristic which they do not really have (whether or not something else has this characteristic, and whether or not they themselves have it at some other time). Error, in a word, is manifestly *sui generis*. Why is it so hard to see that cognition is so too?

A psychology without a soul may be legitimate in theory, but an account of consciousness which ignores the unique facts of appearance on the one hand, and of apprehension on the other, is not at all legitimate. It is true that a phrase like James's 'world of pure experience' seems to evade the difficulty successfully, but this evasion is due to concealment, and the phrase begs the whole question under the slender disguise of ostentatious neutrality. We may conclude, then, that the problems concerning acquaintance with the mind can never be solved by theories which deal only with the objects before the mind.

Consciousness, properly speaking, is either the common and peculiar property of all conscious processes, or else a name for these concrete processes themselves. In the case of cognition, which seems usually to be the only mental process contemplated in these arguments, the name should be applied, not to the objects apprehended, but to the apprehending of them. This apprehension, and cognate processes, compose the very being of the subject, and the whole problem is hopelessly confused from the outset unless a distinction is clearly drawn between the subject itself and a supposed 'inner world' of subjective objects which are not themselves conscious processes or parts of the subject. It is usual to hold that there are certain subjective objects, such as sense-data and images, whose existence implies a unique relation to the mind if not a necessary dependence on it. This view may, however, be false, and the American new realists may be right in maintaining that these apparently subjective objects are not merely subjective, but have also those objective relationships which define the status of physical things. The difference in this case may merely be one of point of view. But it is the subject itself, not this supposed class of subjective objects, which is the primary if not the only proper object of introspection, and the earlier part of the argument of this paper attempts to deal with our acquaintance with the subject itself.

The question may still be raised, however, whether the subject whose existence has been proved by these arguments can really be better known by introspection than by other methods. All that the arguments show is that if any object appears it must appear to something which apprehends it. Now, granting that we seem to be acquainted with this apprehending entity in introspection, may it not still be true that the body is really the entity which apprehends. If that were so, the body, even in this capacity, might be better studied by non-introspective methods than by introspective ones, just as muscular movements are commonly supposed to be better understood by physiologists than by a psychological analysis of kinæsthetic sensations. Indeed, it might even be true that introspective evidence should always give place to non-introspective whenever the two conflict.

The principal reasons adduced in favour of this theory seem to be the following. The objects of consciousness, we are told, are precisely those which are selected in responsive behaviour. Granting, then, that there must be a term which apprehends these objects, it would seem probable that the body is this term. Moreover, the rôle of cognition is defined

principally by its selection and organisation, and there is good evidence that the body, in actual fact, performs this function. The body is the seat of responsive behaviour, and such behaviour is characterised fundamentally by selectiveness and integration. In particular all the phenomena of attention can be readily and satisfactorily explained upon the hypothesis that attention is a process of bodily response at a very high level of selection and integration, specially adapted to spatial and temporal conditions. This argument is sometimes conjoined with others of less importance. One of these claims that introspection is a very good witness against itself, since careful introspection shows that affirmation, denial, and similar processes are really bodily. The inference is that introspection is capable only of giving a preliminary indication of the character of these processes. Their true character must be studied by other methods. Another argument states quite generally that introspection is often palpably incapable of ascertaining certain facts of consciousness whose existence can nevertheless be demonstrated.

These arguments are not at all conclusive. The objects of perception, it is true, are selected in accordance with the requirements of a conative process, and the conative process subserved by perception is naturally a process of bodily response. Again, the bodily response in this case, is not necessarily immediate, and consequently most of the 'tied' ideas in perception, and some at least of the 'free' ideas connected with it are readily explicable in the same fashion. To suppose, however, that all free ideas, and all the universals of logic or ethics can be so explained, or that all conation can be reduced without residue to bodily response, is to make an enormous assumption which has little to recommend it except the large-hearted enthusiasm of naturalism. What light, for example, can this theory throw upon the pursuit of truth or beauty for their own sakes? Even if this assumption were justified, however, and the analysis of sense-perception could be validly extended to the whole range of knowledge, the conclusion does not follow. Cognition and response need not be identical on account of the mere fact that the objects of cognition define the objects of a certain level of response. On any theory cognition is connected with this level of response and guides it, so that the correlation cited in the argument should not surprise anyone. Moreover, the argument, when fully developed, seems to support a different conclusion from the one it professes to prove.

According to the argument, cognition cannot be defined in terms of anatomy or physiology. It requires the concept of

response, and must be regarded, not as any response, but as a specific type of integrated response which differs, *e.g.*, from a simple reflex or a reflex pattern. And that is not all. Cognition is a specific level of integrated response. In an acquired habit, for example, the response is almost entirely non-cognitive. The cognitive level of the response is a narrow cross-section of the total response.

What is this but the assertion that cognition is that species of response in which there is cognition? The term 'response' itself is naturally understood in a quite general sense which includes conscious processes as appropriately as physical reactions. Accordingly, if the theory that consciousness is a kind of response has any real novelty that novelty must consist in the proof that all responses, conscious and unconscious, have the same characteristics, and that the different levels of response are wholly and completely defined by some particular species of neural integration, or by some specific organisation of bodily behaviour. If no such proof is offered (and there is none to offer) we are left with the fact that consciousness emerges in connexion with certain bodily reactions, and that it is closely connected with these. This fact has never been disputed, but the further and disputable question whether consciousness can be identified with a certain kind of bodily reaction cannot be answered by an appeal to the fact. It can only be answered after an examination of the characteristics of consciousness on the one hand, and of certain integrated bodily movements on the other. A theory which defines conscious response by referring to the existence of consciousness gives no reason for supposing that the characteristics of consciousness can be discovered by other than introspective methods, and, indeed, does not even suggest an alternative method.

Of course if James were right in supposing that all mental processes, when attentively examined by introspection, appear to be merely bodily adjustments, there would be no good reason for distinguishing mind from body, or for relying primarily upon introspection in detailed psychological inquiries. This view, however, seems to be founded on an oversight. Our cognitive processes, it is true, are tinged with bodily sentience, so that affirmation and negation, for example, are experienced along with organic sensations due to the opening and closing of the glottis. If, then, in examining the process of assent we are determined to look for something other than the process itself, the correlative organic sensations are probably the best substitute we can find. If assent and dissent consisted of such sensations, a treatise on the

glottis ought to replace most of the literature dealing with theory of knowledge. But the protasis of this argument seems baseless, however welcome the apodosis may be.

In fact we are directly aware of these conscious processes themselves and not merely of accompanying organic sensations. We are aware also that these processes have quite specific characteristics, that we do not find these characteristics in physical things, and that we do not understand them better by supposing them to belong to physical things. To say that perhaps it is the body which apprehends, is not really more informing than Locke's admission that God might superadd a faculty of thinking to matter. Locke meant primarily, I suppose, that it was impossible to refute this suggestion if it means only that a substance which has certain physical properties may also have the attribute of thinking; and so he remarked that it did not become the modesty of philosophy to pronounce magisterially on the question. That is obvious. No one has a right to deny that a substance defined by its spatial contour and its habits of spatial movement may *also* have any conceivable number of other properties, provided that these are neither incompatible with one another nor with the spatial properties aforesaid; and the more these properties differ from physical ones the more difficult it is to prove incompatibility. But a suggestion of this kind is of no value unless the movements and contour of the body help to explain not merely certain facts connected with the range of objects before the mind at any given time but the character of the mind itself. When the body is defined as a physical thing (and how else can it be defined significantly?) no element in the definition explains either the intrinsic character of apprehension itself or the meaning of such fundamental psychical facts as appreciation or logical consecutiveness. These speculations, in a word, may possibly affect the setting of psychology. They should not affect psychology itself.

It is not necessary, indeed, to maintain that the mind and other things are separated by the whole diameter of being in order to defend the science of psychology, or to show that introspection has a peculiar province. Psychology does not require the support of metaphysical dualism. On the other hand, psychologists should not be obsessed by the fear of dualism, and should not be afraid to admit that the mental processes of apprehending, deciding, grieving, and the like, seem to have very little in common with physical movements, or, indeed, with anything directly pertaining either to molecules, or to the 'things' of common sense, or to the sense-data

which, according to some modern theories, are the stuff of things when their biography is neglected. This statement, it is true, would be extremely disputable if thoughts consisted of an inner world of presentations mirroring, for the most part, an outer world of things. In that case, James's illustrative reference to the circular panoramas 'where the real foreground and the painted canvas join together'¹ might sound more convincing than Berkeley's fundamental assertion that nothing but an idea can be like an idea. But if the primary object of introspection is the mind itself and not a class of 'mental' or semi-mental presentations, the attempt to deny any fundamental empirical difference between minds and physical objects cannot claim strong support from direct observation.

The other arguments which have been mentioned may be treated more briefly. It is true that the mere examination by introspection of particular mental processes will not explain how these come into being, how they are organised, or what they lead to. Introspection, indeed, may not give more than a surface glimpse of the mind. That, however, is no reason for denying its truth in so far as it goes, and the proper logical procedure is to try to interpret the hidden mind in terms of the mind which appears. One might add, as an *argumentum ad hominem*, that the attempt to interpret the Freudian wish in terms of the integrated response of the nervous system is entirely opposed to the methods and assumptions of the psychoanalysts. Freud and Jung reject physiological aid as heartily as any behaviourist rejects metaphysical.

The argument that introspection is a very inadequate means of detecting the presence or character of consciousness is even less cogent than the others. To say that it is 'a plain empirical fact that consciousness often attends on nervous responses where introspection is unable to bear it witness'² is true if the statement only means that it is often impossible to obtain clearly articulated introspective results where consciousness is almost certainly present. The fringe of consciousness is not easily observed, and the reasonable interpretation of it may even require an excursion into the hinterland of the subconscious. These admissions, however, leave the main question unaffected. There can be no certainty that any nervous process is accompanied by consciousness unless we are certain of the consciousness. We may often,

¹ "Does Consciousness Exist?" *Essays in Radical Empiricism*, p. 30.

² Holt, *The Concept of Consciousness*, p. 199.

indeed, infer that consciousness was or is probably present, but this inference, in its turn, depends upon introspection. When we know by introspection that some particular nervous response is usually attended by consciousness we may infer, somewhat rashly, that it always is, or we may try to justify our conclusion by arguments based on continuity. In these cases reasonable conjecture takes the place of observation. But introspection is the only means of direct acquaintance with the mind, unless, as some hold, it is possible to be directly acquainted with the minds of others.

II.—THE EPISTEMOLOGY OF EVOLUTIONARY NATURALISM.¹

BY R. W. SELLARS.

WHAT I wish to do in the pages that follow is to make reasonably clear just what knowledge about the physical world should mean to the critical realist. If the naturalist has a definite conception of the character of human knowledge, he will be less likely to fall into naïve substance-theories and to suppose that the very stuff and process of the physical world is open to his cognitive gaze.

Critical realism is a form of physical realism. Like common sense, it accepts the belief that there are physical things; and, like enlightened common sense, its idea of physical things is moulded by the conclusions of science. Now the common character of all modern realisms is the principle that the objects of knowledge do not depend, for either their being or their nature, upon the knowledge of them. To know is not to *form* the reality known out of a *priori* and a *posteriori* material of a mental provenance, as Kant held; but to gain information about it as it exists in its own circle of being. Being is one thing, and knowledge is quite another sort of thing, a function of mind in causal relation to that which is known. We shall have to amplify and explain these statements, pointing out the difference between existents and subsistents and showing that it is only for existents that a causal relation is implied in the possession of knowledge. But there can be little doubt, I take it, that knowledge implies this independence on the part of the reality known. We think of knowing as an event in the history of a mind, an event which does not modify the reality known. For if modified, how could we possibly know the reality as it is?

At the level of common sense, knowledge is *on the whole* regarded as an apprehension by the percipient of the things about him. He is aware of them. They are open to his inspection; they come into, and pass from, his field of experience. These sensible, physical things are regarded as

¹A chapter of a book to be entitled *Evolutionary Naturalism*, and dealing with the main categories of our knowledge about nature.

independent of this awareness and relatively permanent; therefore common and co-real. It is within this setting and in relation to these meanings that the idea of knowledge is formed.

This structure of the field of experience and these meanings cannot be mere accidents. They must have their deep-lying causes. If physical realism is correct and there are physical existents affecting the percipient organism, we can readily understand why these realistic meanings have developed within experience. Realism and realistic meanings imply each other. As a matter of fact, there is hardly a system of philosophy which is not to some degree realistic. Subjective idealism is not in favour, though it is often discarded rather than refuted. What critical realism seeks to do is patiently and persistently to develop an idea of knowledge which fits in with the obvious position and circumstances of human beings.

Let us, first of all, see what common sense takes knowledge to be. We can go on to modify it and improve it as a wider reflexion demands. Logic and psychology can be called to our aid in this task of interpretation and improvement.

The assumption that knowledge is an awareness of objects independent of this awareness is an inevitable reflexion of the structure of the individual's field of experience. If things are external and co-real, and I just 'see' them, my seeing them makes no difference to them and is primarily an event which happens to me. The fact that my sense-organs are stimulated so that the action is *from the things to me*, as well as the fact that I seem able to change things only through the overt action of my organism, confirms me in the belief that this awareness does not modify its objects.¹ Thus common sense would, I think, hold that I perceive this brown-covered book on my desk just as it is, although not exhaustively. There is more to the book than I perceive at any one time, yet in veridical perception I do not perceive falsely. The book is, in part, the content of which I am aware. Yet, in spite of this confidence, enlightened common sense is puzzled by the description of the physical thing which science gives. How can colour be subjective? And what is the relation of these imperceptible atoms to the sensuous object perceived?

Now when we call logic and psychology to our aid, we find that perception is not the simple awareness of an external object it appears to be on the surface. The more sensuous

¹ The informed reader will note that I am touching upon the question of relations. I am not in sympathy with the usual general approach to the question.

part of the content, which we may call the sense-datum without being held guilty of sensationalism, is penetrated by meanings and even interpreted by concepts. I perceive this object as a *book*. There is judgment at work, and universals are being used. Is psychology wrong when it asserts that perception involves mental activities and a synthetic unity of sense and meaning? Furthermore, does not this particular perception arise within the general setting of what may be called the perception of the external world? The complex experience called 'perceiving a book' can be analysed into a *complex datum interpreted by concepts as being an external, permanent thing of the book type, of which I am actively aware*. And this awareness is the empirical subject-self using these concepts and compresent with the complex datum. The awareness may sink in consciousness to compresence in consciousness of an interpreted datum and the self. And it is well to bear in mind that the self has different levels and intensities.

One of the points the critical realist wishes to make is that there is a profound truth in the outlook of common-sense realism despite its inadequacy. The plain man is outward-looking, and accepts results at their face value. The sense of thinghood in the external world dominates his perception. The justified function of idealism, so far as it speaks for real physiological, psychological, and logical facts, is a war against the simplicity of common sense, its ignorance of processes, its belief in an abrupt givenness of physical things. Unfortunately, it has usually gone beyond this toward the denial that we can know physical reality, either with the frankness of a Berkeley or with the subtle scepticism of objective idealism. Critical realism is as much a physical realism as is common sense; but it is to common sense much as the chemist is to the man who works in a chemical factory. In other words, critical realism is an epistemology which seeks to do justice to all the facts which bear upon our final interpretation of the nature and conditions of knowledge. Reflexion soon convinces the thinker that physical existents cannot appear in this literal way within the field of experience, and that, because of this fact, knowledge of the physical world cannot be an immediate awareness of it. These contrasts will become clearer as we proceed. The query we are developing is this: If we do possess knowledge of the physical world, what must be the nature of this knowledge, seeing that the contents we apprehend are non-physical?

There are two distinguishable elements in perception: *the affirmation of a physical thing, and the awareness of the*

complex content which is somehow identified with it. Thus we perceive the physical existent affirmed by apprehending the given characters presented. It is, we feel, this kind of a thing that exists. These characters are its qualities, and to apprehend the qualities is to apprehend it. Content apprehended and existent seem to us, as yet, inseparable. The content of perception and the object of perception are fused. Things are apparently given to inspection.

But logic and psychology show us that realistic meanings and modes of behaviour—the two, by the way, are closely related—attach themselves to the presentational content given to the self in perception. It is in this way that the rise of the naïve category of thinghood can be explained. Things are independent, co-real with the individual, spatial, and possessed of dynamic capacities. They are objects to be reckoned with because they are full of consequences for our life. All these empirical predicates must be true of an object before it can be regarded as physical. The development of this outlook is genetically traceable, and no modern psychologist would feel much difficulty before its analysis. The point to note is, that these predicates are attached to a presentational content; and so the sensible thing is made. We are aware of the content fused with realistic meanings and naturally assume that we are aware of the physical thing affirmed.

But a critical study of the internal and external conditions of perception has revealed to reflexion that common sense was too hasty. The *content* of perception, which has been identified with the *object* of perception or the physical thing affirmed, is found to be numerically distinct from it and essentially a function of the percipient organism under stimulation. The physiological conditions of perception are now well known. But their recognition does not imply acosmism of the Berkeleyian sort. It does signify, however, that the direct awareness within the field of experience of the physical thing is impossible. The content of perception is not the physical thing affirmed as co-real with the percipient organism. Or, to put the result in still another way, the physical existent is not a sensible thing.

We may summarise our conclusion as follows: *No motive has thus far entered to cause us to doubt the existence of physical realities co-real with the percipient self, but reflexion has discovered that the objective content with which we at first clothe these acknowledged realities is intra-organic.* In other words, we can no longer believe that we can inspect the very nature or specific qualities of the physical existent. The

question is beginning to arise in our minds whether physical existents, themselves, have a sensible nature. May not the fusion of affirmation and content, at the level of perception, have entirely misled us? May it not have suggested too simple an idea of the nature of our knowledge, on the one hand, and caused us to think of the existent as something *like* the content, on the other? It is thus very natural to think of the physical existent as an imperceptible sensible thing. The nature of our knowledge of the physical world has become an engrossing problem.

But let it be noted that neither subjective idealism nor agnosticism is justified by this result of reflexion. And I hope that philosophy has got beyond the stage of jumping at hasty conclusions. What is needed is a patient analysis which goes forward step by step *under the guidance of the facts*. The facts which break down common-sense realism work within a realistic set of affirmations and attitudes. Hence, there is no movement in the direction of subjective idealism. *On the other hand, only if knowledge must be an awareness of the physical existent, itself, is agnosticism implied.* But what right has a thinker to shut out other possibilities by such a dogmatic assumption? It is far more logical to suppose that knowledge of the physical world is not an apprehension of it in the manner of naive realism, than that we do not possess knowledge. Agnosticism is a counsel of despair. It is obvious that the nature of knowledge has come up for radical investigation.

Who can deny that reflexion partly finds present, partly extends, the distinction between the realm of consciousness as a field of contents and processes somehow connected with the organism, and the acknowledged world of which any such organism is only a part? And patient reflexion only develops this contrast.¹ The actual *content* of all *apprehended objects* turns out to be non-physical. It is subjective, personal, bound up with the particular percipient organism. In a word, it is what we are accustomed to call psychical.

The paradox of the situation is that what is apprehended discovers itself to consist of characters which have no substantiality. Discriminate as we will, we find only sensible characters and meanings; and yet we feel that the reality which surrounds us cannot be any sum or organisation of such elements. Where is the executive push of things which makes them have effective consequences? The psychical characters do not consume wood or shatter fortresses

¹ Cf. *Critical Realism*, ch. iii.

into fragments. We tend to believe that we grasp an external reality in an intuitive way so that its councils and pulsating energy are open to us, and the tragedy is that what we grasp has no such dynamic power. Being escapes us. And what is true of common-sense realism is equally true of scientific realism. What are mass and energy but quantities? And are quantities self-sufficient realities? The very stuff and being of the physical world again eludes us, while we are left with contents hanging in the air, as it were, and yet masquerading at the least excuse as self-existent and substantial.¹ We are led to ask ourselves whether being can be given. Is not the sensuous *content of perception* a peculiar substitute for the *object of perception*? The object of common sense breaks down for reflexion into a self-existent reality, which cannot be given to awareness and a complex datum which is so given.

But this discovery that only subjective contents are given is a fairly common possession of modern philosophy. It must be remembered, however, that these subjective contents of perception are objective within consciousness, that they are subjective only in the sense that they are in the individual percipient and not a part of the physical environment to which the conscious individual is reacting. Nor within consciousness need these contents be regarded as dependent upon the conscious self's awareness of them. Self-aware-of-content is a complex of a unique sort, the parts of which are together; and as these parts are contents they do not modify one another. At any one time, I am in the field of what is given together. *The being of the content is not its being perceived, and yet the content is psychical and within consciousness.* But this conclusion only excludes naïve realism. It proves that only mental contents can be given in consciousness; it does not prove that we can know only phenomena. The mistake of philosophy has been to confuse these two principles; or, rather, to deduce the second from the first. Yet, unless givenness is clearly the only kind of knowledge, such deduction is unjustified. Uncritical as such a dogmatic assumption is, it has been at work in modern philosophy to a disastrous extent. Kant indicates—in this following essentially Locke and Hume—that only phenomena can be given, and interprets this fact as meaning only phenomena can be known. The whole setting he gives to epistemology is a subtle begging of the question.

But when we recoil from the agnosticism of Kantianism

¹ The old-fashioned forms of materialism were cases of this mistaking of concepts for things.

'camouflaged' by the substitution of experience-in-general for the structure and demands of the consciousness of individual knowers and the identification of the physical world with constructs within this blanket experience, and return to a critical development of the leadings within common sense, we soon see that we humans do possess information about the physical existents we affirm. Within consciousness, we are acquainted only with contents; but what is to prevent us from regarding these contents as *material* for knowledge about the physical existents which we continue to affirm? What necessity is there for holding that *all* knowledge terminates on sensory contents? *That* is a sophisticated view which results from analysis and the abstraction from the meanings and attitudes of common sense.

Now, as I understand it, critical realism stands for the reality and fundamental significance of another kind of knowledge, a knowledge which presupposes this interpretative awareness of the data of observation as a foundation; and yet goes beyond it in the reference of propositions, built upon these data, to physical existents affirmed as knowledge about them. The propositions are within consciousness, the reference is an act in consciousness; but the existent, which is the object of such knowledge, is not in consciousness. The object of knowledge is identical with the object of perception; but, whereas in perception we tend to clothe the object in the apprehended content, we now think of the content as *material* for obtaining knowledge about the object.

Let it be granted that the very existence of knowledge about non-apprehensible objects implies a correspondence between the nature of the object and the character of the sense-datum so that we cannot regard the character of the sense-datum as arbitrary. If, under apparently the same conditions, an object changed its appearance in a capricious way, it would be impossible to regard presentations as material which could mediate knowledge about their controls. But our experience indicates a specific correspondence between physical existent and datum. One flower is white, another is blue, and so on. These differences are rightly taken by all to point to differences in the physical objects. Again, a difference in perceptual position is always judged to correspond to a difference of position on the part of the physical things.

But what is the exact nature of this correspondence? We should realise by now that no dialectical answer will do justice to it. We must appreciate the psycho-physical situation. A determinate existent is the object of the

organism's nervous attention and so controls the rise in the brain of a content of which the subject-self is conscious. The character of the stimulus must be *correlated* with the specific content aroused, but we have no reason to postulate a likeness of content. And what holds for specific qualities holds for such contentual differentiations as positions, distances, and structure. The sensuous contents are not *like* that which controls their rise. And yet, in spite of this denial of the meaningfulness of contentual identity between object and datum, there is every reason to assert a *differential correlation*. It is this differential correlation which makes presentational content the material for knowledge about the physical realm. Knowledge must be quarried out of it by patient comparison and ingenious experimental control. But is not that precisely what science effects?

In order to appreciate this information about physical existents mediated by the data of observation, it will be well for us clearly to distinguish it from all forms of the copy-theory. The copy-theory in all of its forms and gradations assumes that the content aroused in the mind is like the content of the corresponding object. *The master assumption in this view is that physical existents have, or are, contents of this sensuous nature.* But the very uniqueness of consciousness would seem to preclude such a view. I presume Berkeley had this point in mind when he said that a sensation can be like only a sensation.

The tendency of the mind to maintain the copy-view is easily understood. Just because common sense clothes physical existents with sensuous qualities, it retains doggedly this sort of *imagination* of them even when it is forced to admit that they are not direct contents of perception. Hume condemns the 'philosophical hypothesis' that physical existent and percept are numerically different yet resemble each other. He does this partly on the ground of parsimony. Yet representative perception always has a vogue. The physical object retires into the background as imperceptible, but it is still conceived as a double of the sensible thing or content of perception. Representative perception is the perceiving of the physical existent through its reproduction.

The usual criticism of representative perception is interrogatory: How can you know this to be true if you are limited to the content of perception? The criticism which I have offered is, I think, a deeper one. It points out the cause of the illusory tendency and shows that the facts indicate a differential correlation of sensory content and physical existent, two entities which are not co-ordinate because one is substantial and the other not.

In this connexion, it may be well to point out that the traditional categories of thing and its qualities also rest upon the naive form of realism. The qualities are the content of perception thought of as somehow attached to the thing. Every student of philosophy knows into what difficulties this mode of approach got medieval systems and, through them, Locke. The thing becomes an unknowable substance somehow supporting qualities. Critical realism turns its back upon this whole mode of approach. The physical existent is substantial in the sense that it is self-existent—though this self-existence does not preclude dynamic continuity with other parts of the physical realm—but it is not a substance in the Lockean sense. It has a determinate nature, but this nature is not something separable from it in the form of qualities. Knowledge about the existent is knowledge about its nature and, by that very fact, knowledge about it. The epistemological situation is, that we are confined to knowledge-content and its reference. We can think of the existent only in terms of knowledge.

Having, I hope, set the copy-theory at rest, in its form that there is an *identity of content* between physical existent and psychical content, I can now proceed to develop what I have called differential correlation. This correlation is not of the sort championed by the advocates of psycho-physical parallelism. There is obviously a causal relation between the terms correlated in the present case. Hence, that which arises in consciousness is not arbitrarily correlated with the complex of stimuli bearing upon the organism. We may speak of the terms as agreeing, or of the datum as conforming to the stimulus-complex without any content agreement implied.

The presentational complex is, therefore, in a delicate causal correspondence with the physical objects perceived. In this sense, the physical world reveals itself in the data of observation. It is a revelation which can afford the justification for the sort of knowledge about the physical world that we possess. The relation between physical existents and presentational complexes is purely natural and causal. It mediates the sort of data that are responsibly reflective of the physical world. Just because man is an organic individual he cannot expect to be in a more direct cognitive relation to other things than this.

How, then, must we adjudge the status of the presented content in perception? Existentially, as an intra-cortical content to be correlated with the perceived object; epistemologically, as the contentual material out of which knowledge

of the object can be gleaned. And one of my main contentions has been the undesirability of setting up an uncritical notion of what knowledge of the physical world must be.

The general conditions of knowledge are twofold: (1) the presence of data; and (2) the intelligent use and interrogation of these data in the way of analysis and synthesis, the formation of hypotheses, the construction of abstract concepts. In the chapter on the mind-body problem, I shall attempt to show that the capacity for both these factors is to be assigned to the brain; the brain, however, risen to the level of conscious functioning. What we are permitted to accept is a complex stimulation of the brain which is welcomed and furthered by the brain in accordance with its own nature and interests. The conscious brain-mind is interested in reality because of its adaptive function, and, like a skilled lawyer, draws out its story bit by bit and puts it together in its own language. The physical world must be assisted toward its unintentional self-revelation by such an organ as the brain-mind if knowledge is to arise.

And this setting of knowledge-content allows us to claim a genuine conformity between it and the physical existents known. The situation is, of course, unique, and metaphors will not much help us. We are confined to the mental side and can never literally grasp the existent known. Penetrative intuition or literal inspection of the physical world is impossible just because we are what we are. The conformity between knowledge-content (understood propositions) and determinate being rests upon such a use of the revelatory data as to enable us to gain insight into the determinate structure, capacities, and relations of physical things. Being is determinate, and knowledge patterns after it in accordance with its own medium.

II.

Having laid and defended our critical foundation for physical realism, let us now proceed to develop its implications.

We have said that knowledge about the physical world is just the information made possible by the intelligent use of the data of observation. We come to our decisions that physical things have size, exclude one another, are massive, have position, have structure and organisation, have capacities for action, behave in certain describable ways. We develop a *claim* to knowledge of this sort which no scepticism has really weakened. And until this claim is disallowed, we shall *think* physical reality in terms of our knowledge. *It is this thinking physical reality in terms of our knowledge*

which the conformity of our knowledge to reality means. The second is just the reverse of the first. The tests of conformity are internal and are the tests of particular judgments, from the level of perceptual judgment to the more abstract levels of thought. But we have tried to give the whole construction its ultimate foundation by pointing out the responsible conformity of perceptual datum to the physical existents which are the objects of perception. The validity of knowledge is its conformity to reality.

In the light of this interpretation we can examine the structure of our critical knowledge about physical things. An explicit act of knowledge seems to involve at least three factors: (1) the affirmed existent with its determinate nature and continuities; (2) the propositional content within consciousness; and (3) the act of reference of the second to the first as informative of it. This analysis separates what is given together in a complex act of judgment, and yet it does not falsify the facts of the case. It appears that these factors are distinguishable in any judgment concerned with physical things. The physical existent is the subject of the judgment, and its name or symbol is the subject of the proposition; the predicate is the information about it; and the copula indicates the reference or relevance of the two. We think the existent affirmed in terms of the 'objectives'—to use a word of Meinong—that it has a particular structure, size, position, powers, etc. It should be noted, however, that critical realism differs from common sense in that it does not suppose the subject of the judgment to be literally presented nor does it assign to the subject any sensuous content. We *mean* the thing rather than see it, and our knowledge is not a picturing but a series of abstract statements for which data are merely the cues.

The easy way in which the realistic judgments of common sense can be developed into the frame-work of critical realism drives home the point I made earlier, that critical realism can retain the truth of common sense while passing beyond its naïveté. It also accounts for the fact that the critical judgments of science attach themselves to the matrix of common sense with such readiness. All the time, however, we know that science deals with the imperceptible. The *object of perception* is identical with the *object of knowledge*, and so the subject of judgment is the same; but the interpretation of this object is different in the two cases.¹ For the one, it coincides with the content of perception; for the other, this

¹ Those who wish a more detailed comparison of the judgment of naïve realism with that of critical realism will find it in my *Essentials of Philosophy*, ch. xi.

content is a mental datum correlative with the object. It is an *appearance* of the object.

In this setting, it may be worth while to point out the ambiguity of the term *imperceptible*. Distinguished philosophers have written to me saying that they could not believe in imperceptibles. But do they not ignore the distinction which the critical realist makes between the content and the object of perception? The physical existent is *not* an imperceptible if you mean *object* of perception; it is an imperceptible if you mean *content* of perception.

And this distinction rests upon the nature of the act of perception itself. *The percipient organism attends to the object of perception*. We can see the focusing of the eyes, the tension of the head, the directive set of the body. The psychologist knows that the instincts and interests of the organism are aroused and are finding expression in this *behaviour*. We have a behaviour-attitude. And correlative with this is the *content* of perception, which is to subject-self within consciousness as the object of perception is to the behaviour-attitude of the organism. It is this parallelism which leads common sense to merge the correlatives and so identify content of perception with object of perception. All that critical realism does is to distinguish what is distinguishable, and so prepare the way for a satisfactory synthesis which will cover the facts which break down naïve realism.¹

Another implication needing stress is the absence of any cognitive relation between the physical existent known and the propositional knowledge about it. Past philosophy made much use in its dialectic of the subject-object relation. Idealists held that the object is internally bound up with the subject or knower, while the neo-realists countered with the idea of external or non-modifying relations which left the reality the same whether being known or temporarily outside the cognitive relation. The *ideal* of knowledge certainly favoured the realistic plea; and yet the battle was drawn. What critical realism does is completely to change the problem from dialectic to fact. If the physical existent is extramental, it is nonsense to speak of a cognitive relation between it and the act of referred knowledge. Such a relation could only be transcendental and non-natural. And like all transcendental relations we soon find that it is absolutely unnecessary.

The physical existent is not an object in its own right. It is *made* an object by the selective activity of the percipient organism. And this selection is behaviour on the part of the

¹ The chapter on the mind-body problem will perform this synthesis. See, however, an article of mine in the *Philosophical Review*, March, 1918.

organism, preliminary, usually, to overt action upon the existent selected as object. It is an adjustmental activity of the sort described above. The relation of the existent to the organism is causal; it is the source of stimuli. But the selection of one existent rather than another *as object* is due to the interest of the organism.¹ At the level of perception, therefore, we have the following correlation: objectively, or physically, an organism focusing upon one of many stimulating existents and making this existent its object, an action to which the existent is quite indifferent; subjectively, or in consciousness, a content growing in clearness as the self attends to it and initiates those adjustments felt as movements of the eye and head, etc. There is a togetherness of the content and the self in the unity of consciousness. Back of this togetherness is a functional activity of the organism, but there is no causal relation between content and self in consciousness. Between existent selected by the organism as object and the organism there is, on the other hand, a causal relation but *in the direction from existent to organism*. This factual analysis shows that there is no peculiar cognitive relation between the object and the percipient organism.

And what is true of perception is equally true of critical knowledge. The act of reference is a selection of an existent as object of the knowledge-claim. This selection is an internal process mediated by spatial and temporal distinctions. Thus I *mean* (select) the house five blocks from me on the right-hand side of the street. Instead of speaking of a cognitive relation, it would be far less ambiguous to speak of a *cognitive selection*.² But as soon as we do so, the dialectic controversies fade into their proper nothingness. The traditional maxim, "No subject without an object, and no object without a subject," can only mean that in perception and cognition the organism selects an existent as object, that is, as what it focuses itself upon. But philosophers have not well enough noted this relativity of *objectness* to the organism, and have interpreted the maxim as meaning no existent without a subject, which is untrue.

Physical realism must also defend itself against the phrase, "transcendence of experience". Experience is one of those blanket terms which have made epistemological analysis difficult. It seems nonsense to say that I can transcend experience. But as soon as I realise that experience means both consciousness and knowledge, the situation begins to

¹The critical realist and the neo-realist have much in common here, but the neo-realist has confused the content with the object of perception.

²See *Critical Realism*, ch. viii. for a fuller development of this point.

clear up. I can transcend my consciousness, not in the sense that I can get outside of it in any literal way, but in the sense that the knowledge I build up in it can by an act *in consciousness* be thought of as interpretative of an existent affirmed by the conscious self as co-real. It cannot be too much stressed that consciousness is simply a term for the field of experience with its empirical structure. In this field the subject-self, which identifies itself with the organism, is the only existent accepted besides the objects perceived and thought about. To affirm these co-real objects is not to transcend consciousness. To so interpret functional acts in consciousness is to picture everything in a quasi-spatial way and so to create puzzles where none exist.

But I think that Kant's experience-in-general in which physical things are constructions has had much to do with the vogue of this boggy about transcending experience. And I shall say no more about this aspect of the controversy, for, if my approach has not already undermined Kantianism, I cannot hope to do it here. Kantianism and critical realism are incompatibles.

But 'transcend experience' has sometimes meant to transcend knowledge. To this we would simply reply that we do not want or need to transcend knowledge. If experience reaches as far as knowledge, we are satisfied. If I experience a person when I know him, experience is just another term for knowledge.

Finally, I would point out that the critical realist prefers such terms as selective reference or internal pointing in place of transcendence with its spatial associations. In knowledge we neither transcend consciousness nor knowledge. Referred knowledge is a function of consciousness, and consciousness is not a stuff which we have to walk out of in knowledge. Philosophy must be empirical and not be ridden by metaphors.

In the argument of the book, I shall constantly make the statement that we do not know the stuff of physical reality but only have knowledge about physical reality. Let me here anticipate the more serious objections which may be directed against such a statement by those who have not grasped adequately the implications of critical realism.

The assumption that we can know the stuff of the physical world gets its measure of plausibility and meaningfulness from two really opposed approaches. The naïve realist supposes that he intuits the physical thing itself. Knowledge is an awareness of the very inherent and essential qualities of the physical world. And is not this awareness a knowledge of the stuff of the world? There may be more to it than is revealed,

yet this more would be continuous with, and not essentially different from, what is revealed. Traditional materialism is, I presume, simply a scientific refinement of naïve realism in which secondary qualities are removed and master contents like mass and motion developed in the place of the more sensuous primary qualities. The world is abstractly intuited.

The other mode of approach to a knowledge of the stuff of the physical world is through analogy. The idealist holds that in consciousness we have a direct acquaintance with a substantial stuff which can be assigned by analogy to other reals. Panpsychism develops its theory of reality in this fashion. But is consciousness of a nature to bear this burden? Does the knowledge about the physical world which science achieves fit this flow of contents we know so well? I have never been able to persuade myself that it does. Consciousness is real—of that there can be no doubt—but is it not a flow of contents expressing and guiding the functioning of some more substantial reality?

But if neither by an intuition of external reality nor by an acquaintance with it in ourselves are we able to get into cognitive inspection of physical being, it would seem to follow that the ideal is impossible of attainment and so is, in a measure, illusory. The more we reflect upon the situation, the more do we ask ourselves what is really wanted. Physical existents are; they can be disintegrated theoretically into, say, electrons; but if sense-data are mental contents they cannot *reproduce* the electron and so reveal its stuff or essence. And are not these latter terms mere words? They symbolise what we feel must be there—something to account for what takes place, something as basis for structure and position. But must we not admit that we cannot get nearer to it? By our very situation and the very nature of consciousness, being eludes us. To know physical reality is not to grasp physical being. If this be agnosticism, it is at least of a peculiar kind. It is agnosticism only in relation to an uncritical ideal for the reach of human knowledge. It is not agnosticism of the traditional type with its contrast between knowable phenomena and unknowable absolute. We do have knowledge about physical reality, but we do not have a penetrative intuition of it. Let him who has it tell science what electricity is, and not merely what it does under specific conditions. *Knowledge has its place in consciousness, which is, itself, in an organism reacting to its environment.* Such knowledge necessarily has its limitations. Knowledge is other than being. But because it is knowledge, conformable to reality, it guides the human organism in its perilous effort

at adaptation to, and control of, the parts of the universe in which it finds itself.

Knowledge of another consciousness is different from knowledge about the physical world. *The first is a knowledge through asserted identity of content; the second only information-about with no identity of content.* Thus when I interpret an expression on the face of my friend as meaning amusement, I use the expression as a symbol of a contentual experience which I regard as, in its essentials, the same for him as for me. Words which he uses are likewise admitted symbols of mental contents sufficiently identical in character. Such identity of meaning does not conflict with the numerical difference of existence of the two mental states implied.

This difference between the two kinds of referred knowledge coincides with the difference between the two realms. Were the physical world not, in some sense, other than consciousness, we should not expect this fundamental contrast in type of the two claims. In the one case, the data (expressions, gestures, and words) are natural or arbitrary symbols of mental contents; in the other case, they are not symbols but cues for the construction of propositions. It is the claim of critical realism that it can suggest an evolutionary naturalism for which consciousness and the functioning brain can be thought of as continuous and one natural whole *by very reason of this difference in our knowledge of them.* Just because of its more adequate epistemology, it can harmonise what naïve materialism hopelessly separated or only verbally connected. Just because consciousness is not a physical thing, it can be inserted into the brain. Panpsychism tries to smooth over difficulties; evolutionary naturalism conquers them by its more adequate analysis.

Critical realism has little difficulty in formulating the idea of truth implied in its theory of knowledge. Trueness and falsity are terms of approval and disapproval applied to judgments or claims to knowledge. Some judgments have turned out to be mistaken, and therefore the claim of a belief is theoretically disputable. When with this possibility in mind we say that an idea is true, *we mean that it is a case of knowledge as it claims to be.* It would seem, then, that the knowledge-claim is logically prior and is the important element in the meaning of truth; and knowledge demands the correspondence or conformity of the asserted content with reality.

But when the idea of trueness is merged in the body of truths accepted by the human mind, truth is apt to contain other elements of meaning of an historical sort. Truth is something that grows and increases in volume and signi-

ficance. Old ideas are re-interpreted and new facts assimilated. I presume all thinkers would admit the genetic development of the systems of judgment which are now generally claimed to be true. Knowledge is not something machine-made. Parts of it are more or less adequate, more or less undergoing change. We are passing judgment upon the empirical content of various times and temporarily, perhaps, neglecting the idea of trueness.

We must also distinguish the *meaning* of truth from the *criteria* of truth. The criteria must be intra-experiential or empirical. I presume science lays almost equal stress upon fidelity to fact and coherence. Those ideas pass as true which agree with facts of observation and show a capacity, due to their content, of organising these facts in an explanatory way.

There has been, I think, a clearer understanding of these distinctions of late. Pragmatism can be credited with part of the glory, and realism with a goodly share of it. The rôle of idealism is more obscure. I would suggest that its chief value has been as a protest against the immediacies of neo-realism. Pragmatism has itself been developing away from its original stress on the feelings.¹ Its chief fault still appears to remain, *viz.*, an unwillingness to admit the implications of the knowledge-claim. It lives too exclusively in the temporal dimension of experience.

Brief as this discussion is it must suffice. All realists, I take it, admit that particular judgments may be absolutely true. When I assert that Columbus discovered America in 1492, this judgment is either true or false. Judgments may supplement each other and so form a system, but the individual judgments need not depend upon the system. Is it necessary to add that truth must not be used as synonymous with reality, as many objective idealists have been inclined to use it? Truth is a human affair. It is, however, not arbitrary, but, like knowledge of which it is the confirmation, strictly controlled by responsible data.

Finally, a few words at least must be said about the distinction between subsistent and existent. The new realists make much appeal to the subsistent as something equally real with the existent and yet not reducible to it. The self exists, the physical world exists, but geometrical objects, numbers, space, time, universals of all sorts, facts, ideals *subsist*. It is not always easy to decide what is meant by this contrast. Sometimes we hear mention of three kinds of being: the mental, the logical or subsistent, and the physical. And yet two of these are said to exist, while the third subsists.

¹ As I write this, I have received a thesis of a pragmatist entitled: *William James and Pragmatism* in which James's shortcomings are scored.

Frankly, the critical realist does not like this use of the term being. The very abstractness of the term is apt to lead to unreal puzzles. To admit co-ordinate kinds of being is to proclaim species of a genus; and what is more natural than to be challenged for both the differentia of each species and the common character which makes them belong to a genus? We have already hinted our belief that consciousness as a whole can be included in the physical realm when this latter is properly interpreted. We have argued that physical being cannot be grasped. What we can do is to state the essential characteristics of the physical realm as these are found in our knowledge about it. The realm of consciousness does not fit these characteristics; therefore, it cannot simply be identified with the physical realm, as panpsychism attempts to do. But a little reflexion shows us that we are acquainted with the one realm as we are not with the other. The exclusion cannot be one of inspection as has only too often been supposed. Moreover, the relation between them need not be one of identity in the sense that there is no difference between them. We must enlarge our notions of relationship and make them more empirical. An existential relationship is different from a logical relationship of likeness and difference. *Logical relations hold between objective contents in consciousness alone.* To anticipate our more detailed argument in a later chapter, we may say that consciousness is a functional expression of the brain, and so internal to, and continuous with, physical reality. And this relationship is existential. Only he who supposes that he can so intuit the whole being of the brain as to be certain that consciousness is not there has the logical right to reject this hypothesis to which all the empirical facts point. I presume that Bergson in his repeated declaration that consciousness cannot be in the brain is building upon his assumption that the material world is really space. Descartes still pursues the anti-intellectualist. To grasp time and throw it into the face of space as a fourth dimension is dialectical and not empirical. Epistemology must dig below these dialectical contrasts. It is the cherished persuasion of critical realism that it, alone, offers this possibility.

We come now to the distinction between the mental and the subsistent. To regard the logical or subsistent as a part of the mental used to be the unfailing course of philosophy. Such contents are for Locke ideas. And these ideas are contentual objects of the understanding when a man thinks. Let it be remembered that, for the critical realist of to-day, the *object* of perception and the *object* of cognition (knowledge-content, objectives, ideas) are mental subsistents which are

as they are experienced. But neo-realism with its tendency to identify consciousness with a reference to an object, or with a transparent awareness, or with a class of entities, seeks to avoid subjectivism by making a functional duality in consciousness into a dualism. We, on the other hand, have avoided subjectivism by attaining a more adequate notion of knowledge and making it a function of the whole of consciousness, a notion which does not eviscerate consciousness of concrete content and fits in with psychology.

The distinction between contents of which we are aware and the awareness of them is capital and must not be ignored. Cognition is not, however, a sort of immediacy; the self is alert and joins itself to concepts interpretative of the data intuited. Thus even the knowledge that terminates upon contents within consciousness is more than feeling. The self thinks the data. When there is a distinct problem, this process is very apparent; but it is always more or less there. When interpretation is at a minimum, either because no problem has clearly arisen or because the problem is solved, the objective content faces the self as an object of awareness. Now my argument is that this complex, "self aware of objective content," is a characteristic structure of consciousness.¹ It is carried over from perception to conception, from perception of objects to awareness of contents. *All that is needed is a loosening of the content from the meanings of thinghood. The content then stands out in its own right.* Such contents are called subsistents. Abstract space, time and number are not physical things, yet they are objective contents of thought. They can be analysed and synthetised. Did not the mind have this capacity, there could be no science. Thought deals with conceptual content.

Let me connect this structure within consciousness with the perceptual situation of the organism. It will be remembered that I laid stress upon the parallelism between the behaviour-attitude of the organism and the thing which it focuses upon (the object of perception), on the one side, and the two poles of consciousness, the subject-self and the content of perception, on the other. There is a duality on both sides that cannot be ignored. The content presented to, and interpreted by, the subject-self is to this self much as the thing is to the interested organism. The realist believes that this structure within consciousness is no accident. It is surely a functional reflexion of the situation of the organism. The perceptual datum is a mental substitute for the thing to which the organism is reacting, and the conscious self is

¹ See *Critical Realism*, ch. v.

interested in it for that reason. The situation of the organism is projected into consciousness. The subject-self as the representative and conscious expression of the instincts and purposes of the organism is to the organism as the sense-data are to the thing. The independence of the two terms which are extra-mental is reflected in the independence of the two poles of consciousness, the self aware and the contentual object of its awareness. And, if I am not mistaken, psychology admits that the presentational side of consciousness, connected as it largely is with special areas of the brain, has this sort of independence of subjective interest. Of course, the two poles are inseparable, yet there is no causal relation between them. The subject-self selects,¹ it does not create or change data.

It follows that I agree with much of the analysis of the English neo-realists in regard to awareness and its contentual object. Yet I am convinced that they have robbed awareness of its actual content by separating it from the interested and interpretative subject-self. Their other mistake was to regard the contentual element, or idea in the Lockean sense, as non-mental. As I have already argued in my *Critical Realism*, this total structure is an affair of consciousness in the psychological sense of that term.

Now as the practical attitude demanding action becomes less dominant, this perceptual structure remains, but is transformed. The very personal, active self becomes more the thinking subject, while the perceived *thing* becomes more a content of which the subject is aware, one of his thoughts. This content or idea may be a sense-datum or a very abstract complex, symbolised by words. But if my argument above is correct, this idea is mental and dependent upon the brain. The subject is just as mental, but is the centre of control and organisation. These ideas are what it is now the fashion to call subsistents. Their coming and going are events indifferent to their nature. What is given to the subject is the content and not the content's existence as a mental event.

Yet genetic analysis soon convinces the unprejudiced thinker that all ideas, even the most abstract, have their roots in sense-experience and so are continuous with presentations. Universals are not fictions, but they have the same existential status as sense-data.

But the ideas in terms of which we possess knowledge about the physical world are understood propositions. Knowledge has its internal structure as well as its reference. Data of awareness are the servants of propositional knowledge about things.

¹ It selects largely through its control of behaviour.

III.—MR. JOACHIM'S COHERENCE-NOTION OF TRUTH.

BY A. R. WADIA.

FEW books open with a greater promise of fulfilment and end with a greater expression of disappointment than Mr. Joachim's book on the Nature of Truth. He passes over the pragmatist notion of truth as "not a new theory of truth, but a denial of truth altogether," and devotes two chapters to Truth as correspondence, full of logical subtlety, vitiated unfortunately by two defects, since he formulates the correspondence-notion in a way, which would be challenged at every step by its supporters, and he criticises it from the positive standpoint of his Coherence-Notion. This suggests that he himself has worked out the Coherence-Notion in all its details and established it with a certain amount of completeness. As a matter of fact the net result of his enquiry into the nature of truth is thus expressed by him: "And since all human discursive knowledge remains thought 'about' an Other, any and every theory of the nature of truth must itself be 'about' truth as its Other; *i.e.*, the Coherence-Notion of truth *on its own admission* can never rise above the level of knowledge which at the best attains to the truth of correspondence. Assuming that the Coherence-Notion of truth is sound, no theory of truth as Coherence can itself be completely true, but is at most possessed of a truth which we may believe but have not proved, to be symptomatic of perfect truth" (pp. 174-175). This is scepticism, and Mr. Joachim may pride himself on his scepticism as an honest "confession of ignorance" (p. 180), but honesty of purpose by itself is no test of the philosophic worth of a theory. We propose to discuss some of the causes of Mr. Joachim's failure to satisfy even himself.

The main points of weakness in Mr. Joachim's arguments may be briefly summarised as follows:—

1. It is not clear as to whether he is discussing human knowledge, or the knowledge of the Absolute as it is for the Absolute.¹

¹ It is but fair to admit that Mr. Joachim does not use the term "absolute". He prefers to speak of the Infinite Experience. In the footnote on page 83 he admits that the term experience is unsatisfactory, and

2. His identification of Truth and Reality makes at least a relatively independent epistemology impossible.

3. The real nature of Truth is adjectival, and Mr. Joachim treats it as wholly substantival.

4. Distinctions which had been validly made by Mr. Joachim himself in his criticism of the correspondence-notion are unjustifiably negated by him when he comes to discuss his own Coherence-Notion.

(i) It is rather unfortunate that the ambiguity latent in the word "knowledge" by itself is not explicitly cleared up by Mr. Joachim. We should be justified in understanding by it just human knowledge, but Mr. Joachim is by no means satisfied with anything less than the knowledge of the Infinite Experience. Thus in reply to the question whether his "sketch is intended as an exposition of truth as it is for human knowledge," or whether he is describing "an ideal experience, which no finite mind can ever actually gain," he definitely says:—

"This manner of formulating the question . . . involves certain assumptions. . . . But whilst refusing to commit myself to these implications, I should reply that my sketch was intended to describe the nature of truth as an ideal, as the character of an ideally complete experience" (p. 78). Further he says: "Now there can be one *and only one* such experience: or only one significant whole, the significance of which is self-contained in the sense required. For it is *absolute* self-fulfilment, *absolutely* self-contained significance, that is postulated, and nothing short of *absolute* individuality—nothing short of *the* completely whole experience—can satisfy this postulate" (p. 78). This high language carries within its bosom a corollary fatal to human knowledge, a corollary which is boldly deduced by the author, *viz.*, such an ideal of truth is absolutely beyond human experience. Such an ideal may be worth talking about, and discussing about from the standpoint of the Absolute, but what can be its worth to human beings? They are and will be as far removed from truth as ever. Knowledge and truth are identified and both have reference to the Infinite Experience. Even the barrenness of the consequences of this view from the standpoint of humanity does not at any stage of the book make Mr. Joachim question the justifiability of his initial postulate. Almost towards the end of the book he

that the phrase "the Absolute" would be the best for his purpose. But he fights shy of using this term, because it has been travestied by critics. Personally I prefer to use the term "the Absolute" and will so use it in the course of this article.

repeats again: "That the truth itself is one, and whole, and complete, and that all thinking and all experience moves within its recognition, and subject to its manifest authority; this I have never doubted" (p. 178).

And yet it is this undoubting faith that is the root-cause of Mr. Joachim's failure. We are not concerned to deny to the knowledge of the Absolute its character of a coherent and significant whole. But when it is claimed that *it alone* is true, it is time to protest, for it involves the view that human knowledge is never completely true, *i.e.*, the highest flights of human knowledge involve more or less some degree of error. If no human judgment is *wholly* true, it follows that every human judgment even at its best is only approximately true. This conclusion is consistent with Mr. Joachim's postulate, but evidently militates against common sense, for in our ordinary everyday experience we do not dream of doubting that $3^2=9$ or that "this tree is green". Common sense insists that these judgments are wholly true. Mr. Joachim in the interests of his postulate is concerned to show that they are not wholly true by themselves. In order to prove his point he considers two crucial cases of human judgments: the universal judgments of science and judgments of fact, especially of perception. With reference to the former he succeeds in showing that any universal judgment of science by itself is unintelligible apart from the system of the particular science to which it belongs, that *e.g.*, $3^2=9$ is true only within the system of the whole science of arithmetic, just as the proposition that the angles at the base of an isosceles triangle are equal are true only within the system of Euclidean Geometry. Mr. Joachim seems content with having established this, but this conclusion does not meet his case at all. If the truth of his initial postulate is to be maintained, *viz.*, that the Infinite Experience alone can be true, he has to show that $3^2=9$ and such judgments being human judgments can never be wholly true. What he has actually succeeded in showing is that $3^2=9$ is not wholly true by itself, *i.e.*, apart from its system. But then this system itself is human, and hence $3^2=9$, is wholly true even from the purely human standpoint.

Mr. Joachim, however, is even in greater straits when he tries to minimise the truth of judgments of fact, which include historical judgments, descriptive and classificatory judgments and judgments of perception. With reference to the first two classes he succeeds in showing that they are true not by themselves but only within their appropriate systems. Our remarks with reference to his discussion of the universal

judgments of science apply also to these historical and descriptive judgments. The judgment of perception is far more difficult to dispose of. It appears to stand by itself, completely independent of any system. It would nevertheless be easy to show—though Mr. Joachim does not care to take up this line of argument—that to be completely significant and wholly true even a judgment of perception must form part of some one system of experience. Instead of this by diverse subtle arguments he attempts to depreciate the worth of judgments of perception. Thus he says: "Hence the judgment of perception, as such and as formulated, is entitled less than most judgments to claim absolute truth. For it is the product of a comparatively low grade of experience. It does not persist as such and unaltered in the thought which has risen above the level of everyday conversation, of description of particular matter of fact, and of the practical affairs of life" (pp. 109-110). In other words, he tries to detract from the worth of such judgments by emphasising their want of persistence in an unaltered state, as if anything in order to be true must be quite persistent and unaltered. But this notion if true contradicts his description of the Infinite Experience or the Absolute as self-fulfilling and self-fulfilled. Such a self-fulfilling Experience must be a growth in time, and hence it cannot be absolutely the same even in two successive moments. If even the Infinite Experience is thus not persistent, not "a finished product, a static consummated whole of experience" (p. 83), and yet on Mr. Joachim's own postulate it can lay claim to be wholly true, why should the judgment of perception be denied to be wholly true, simply because it does not endure? Yet in a sense surely it does endure, a judgment, having been made once, cannot be annihilated. Its existence may be forgotten, but thereby it does not cease to exist as having once formed part of some individual experience.

I should conclude that Mr. Joachim's scepticism about human truth is not borne out by human experience. Aiming too high, *viz.*, at the truth and knowledge of the Absolute, he fails to account even for human truth and knowledge. One can appreciate his confession of failure. But the failure does not appear to me to be so inevitable as it does to him, for it could have been avoided either by giving up his postulate or by admitting that at least certain types of human judgment are wholly true. If we are unable ever to attain the perfection of Infinite Experience, it is hardly worth while concentrating all our energy on attaining it, for we fail to attain it and are further puzzled over the elements of even human experience.

It would be much better to cope fully with the problem of human knowledge and establish its claim to truth. Setting out to solve the problem of human truth, he early gets lost in the bewildering mazes of Infinite Experience. Starting with full confidence, he merely ends in a "confession of ignorance". Even the knowledge attainable by humanity partakes of the nature of an ideal, in the sense that no single human being can ever hope to attain perfect knowledge—the "ignorance" of Socrates and Newton has something sublime in it, yet it is an ideal which is within the compass of humanity as a whole, whereas Mr. Joachim's ideal is beyond humanity, whether individually or collectively. The knowledge of the Absolute as it is for the Absolute is open only to the Absolute. For a human being to aim at it is unjustifiable and having aimed at it to grow desperate and become sceptical even about human knowledge and human truth is like a child struggling to grasp the moon and then failing in its attempt disdaining to take hold of any food. If Mr. Joachim's Epistemology is the only epistemology possible, no wonder the man of mere common sense prefers to keep at a distance from it.

(ii) Mr. Joachim has further rendered his task still more difficult by completely identifying Truth and Reality. This is clear from passages like the following: "Truth in its essential nature is that systematic coherence which is the character of a significant whole. A significant whole is an organised individual experience, self-fulfilling and self-fulfilled" (p. 76), and further, "It is this process of self-fulfilment which is truth, and it is *this* which the theory means by 'systematic coherence'" (p. 77), and he speaks of "the concreteness of the coherence which is truth" and "the conception of truth as a living and moving whole".

Now we fully admit the enormous difficulty of defining Reality. In its simplest essence it involves *being*. Whatever is is real. In this sense evil and error are as real as goodness and truth, and an idea is as real as a stone. A judgment inasmuch as it has being, is also real. Yet it is possible to distinguish between judgment and Reality without necessarily committing ourselves to the Correspondence-Notion of Truth. For a judgment is always *about* something and that something is Reality. Every judgment as soon as it has been made becomes part of Reality, but while it is being made it is always about Reality. Knowledge is about Reality and in its totality is composed of an infinite number of cohering judgments. If the ultimate Reality is self-conscious as the Absolute, it is clear that its knowledge is identical with itself.

Hence from the standpoint of the absolute, Knowledge and Reality are one, because they coincide. The absolute knows itself. Its knowledge is complete, and its Reality is complete. This complete knowledge is the Absolute as thinking. This complete Reality is the absolute as being. For the Absolute epistemology and ontology are just one. But this identity is not possible from the standpoint of humanity, for Reality is far wider than human knowledge. Human beings come in contact with Reality through knowledge, for them every judgment is real, but every judgment is not true. Hence arises the problem of distinguishing true judgments from false judgments, and this distinction is vital to human knowledge. Hence any attempt at the identification of Truth and Knowledge with Reality ends in a total failure to account for error and falsehood, nay, what is worse, it stultifies the whole fabric of human knowledge. An instance of this we see in Mr. Joachim's book. By identifying Truth and Reality he has transcended the limits and the possibilities of human knowledge, but only at the cost of stultifying all human knowledge. From the Olympic heights of the Absolute he may preach the oneness of Reality and Knowledge, but his preaching sheds no light on the path of the poor human beings struggling to distinguish the true from the false. This is the problem of human epistemology, and the solution of it essentially aims at establishing a criterion of truth. Mr. Joachim, however, in the footnote on page 67 emphatically repudiates this idea: "a *criterion* of truth—i.e., something other than the truth itself, by which we are to recognise truth—is not what we require. We want to know what truth in its nature is, not by what characteristics in its opposing falsehood we may infer its presence." It is this repudiation which detracts from the worth of his book as a distinct contribution to *human* epistemology.

(iii) The identification of Truth and Reality makes it clear that Mr. Joachim regards truth as being substantive in character. There is of course a sense in which it would be good English to say: "He is a true man," though it would be meaningless to say—except metaphorically—that "Mr. H. is truth". Now what exactly is meant by saying that Infinite Experience alone is truth? Is this meant literally or metaphorically? Mr. Joachim would take it literally; but it seems to me on the analogy of common language that it ought to be a metaphor. It is very important to recognise clearly that truth is an abstract noun just as much as colour or tallness, and as such it has no independent existence. Thus truth never exists by itself, it always has reference to a

judgment. In fact truth means just a true judgment, just as much as redness implies a red object and tallness a tall object. If there is no truth apart from a judgment, truth has no substantive character, it is purely adjectival. It is a concept constructed on the basis of numerous true judgments. Hence the question: what is truth? is as significant or as meaningless as the question; what is redness? There is no one truth as Mr. Joachim emphatically states, but there are as many truths as there are true judgments, and the range of these different truths is as wide as the range of corresponding judgments.

If our view be correct, *viz.*, that truth is adjectival in its nature, it follows that the question: what is truth? can only mean: what is the mark of a true judgment? *i.e.*, what is it which distinguishes a true judgment from a false one? In answer to this question we should gladly use the notion of coherence, since we fully agree with Mr. Joachim that a judgment can be recognised as true or false not by itself, but only with reference to some system. A judgment is completely, or more or less, true only in so far as it is completely, or more or less, in conformity with—*i.e.*, cohering with—the other judgments within that system. As Mr. Joachim puts it: "the degree of truth is measured by the degree of fullness of expression which the significance obtains in each case" (p. 104). Each system of judgments constitutes a relatively independent whole, but it may be interrelated with other systems of judgments, as *e.g.*, the system of Formal Logic is interrelated with the system of mathematics in Mr. Bertrand Russell's philosophy, or as the system of ethics is interrelated with the system of biology in Herbert Spencer's philosophy. Hence it is not merely that judgments within a system have to cohere, but also that the different systems have to cohere, till we have a completely rounded system of human knowledge. Mr. Joachim would of course push back this line of argument right up to the Absolute, but there are dangers of killing human knowledge involved in this method as we have pointed out already, and hence we should be perfectly content to have the system of human knowledge as the highest system, feeding and fed by particular and narrower systems of sciences, history, and other branches of human knowledge. I think even Mr. Joachim would admit that this system of human knowledge is by no means a despicable ideal to aim at. It is vast enough to absorb all the energies of human beings without their striving to attain the knowledge of the Absolute and then feeling despondent over the inevitable failure of their attempt. Thus the coherence-notion need

not be assumed from the beginning to involve just one absolute system of Truth, but as we have been trying to show it is perfectly compatible with a number of interrelated but co-ordinate systems. *E.g.*, $3^2=9$ is a judgment completely true because it coheres with the system of arithmetic, and is not contradicted by a judgment in any other system. So, too, the judgment: "this tree is green" is completely true, because it coheres with the other judgments in the systems of an individual consciousness and ultimately in the whole system of human knowledge. On the other hand an ethical judgment like "Pleasure is the goal of life" may be completely false or partially true according as it completely or only partially fails to cohere with the other facts of ethical life or other systems of knowledge like biology and medicine.

(iv) Even in the earlier chapters, while dealing with the Correspondence-Notion, Mr. Joachim vigorously challenges the duality which realism involves. He again and again insists that this dualism is not maintainable. Thus he says: "This severance of the experienced Real from the experiencing of it, is the very mistake, against which the main discussions of our second chapter were directed; whilst, if truth be thus located in a sphere of being apart from mind, it is difficult to see how science can in any sense be true" (p. 69). After such an explicit statement it almost comes as a shock that Mr. Joachim in the latter half of the last chapter should morbidly talk of "the dual nature of human experience," and that this duality has not been overcome by the Coherence-Notion, and hence that some sort of correspondence is inevitable! One is tempted *mutatis mutandis* to echo the words of Matthew Arnold in his essay on Shelley: that Prof. Dowden is like Providence, in that "the ways of both are inscrutable". What Mr. Joachim refutes in one place he himself brings up in another place as an insuperable objection. Such a morbid inconsistency renders the task of studying his views extremely difficult. The subject experiencing and the object experienced are not two hostile entities, they are essentially distinguishable elements within one system, hence their duality is not at all fundamental. Ontologically speaking the whole universe is a system. The absolute is the ultimate concept of Idealism, to which the logic of facts is irresistibly driven. While realism starts with plurality and ends in pluralism, idealism starts with the manifold of experience and ends in monism. As an idealist Mr. Joachim is bound to emphasise the living unity of what he calls Infinite Experience. He does so emphasise it, but the worth of his emphasis is destroyed by his regarding the duality of human

experience as ultimate, and, as such, a fatal flaw in the Coherence-Notion, which he cannot overcome.

A similar sense of oppressive difficulty pervades his discussion of error. But its epistemological difficulty is grossly exaggerated. Error is relative to truth—just as much as evil is relative to good—and is neither more nor less difficult than the problem of truth. The real difficulty of error is ontological or metaphysical, and from this standpoint it becomes a part of the larger problem of evil. With the solution of this problem epistemology is not as such concerned, and Mr. Joachim is acutely conscious of the difficulty merely because of his initial error in identifying knowledge and Reality and thus merging Epistemology into Ontology.

A. R. WADIA.

IV.—AN AMBIGUITY AND MISCONCEPTION IN PLATO'S IDEA OF MORALITY IN THE *RE- PUBLIC*.

BY P. LEON.

THE *Republic* of Plato is confessedly an enquiry into the nature of *δικαιοσύνη* or morality. It is that purpose which gives unity to the wonderful variety and multiplicity of the topics discussed in the book. The metaphysical, psychological, and logical investigations, the exposition of an ideal state, the discussion on the requisites of education, the advocacy of feminism and communism, the criticism of art, important as they are, and although they bulk large in the book, are all subsidiary to this enquiry, and each is introduced by Socrates reluctantly, with apologies and with a careful explanation of their relevance.

Yet if regarded as such an enquiry the *Republic* is disappointing; the answer to the question with which the book begins seems futile, and we feel inclined to say "*parturiunt montes, nascitur ridiculus mus*". The result is that we are apt to remember the book more for its side issues and *parerga* than for what it pretends to be. We go for our Ethics to Aristotle, and practically forget that the *Republic* also has a claim to the title *Ethica*.

The reason for this, is, I think, that there is throughout the ethical part of the *Republic*, present latently and implicitly at least, a fundamental misconception of the nature of morality. That misconception does not, it is true, constitute the whole of Plato's ideas about morality, but it is a sufficiently large part of them to be the cause of all the fallacies of his ethical arguments. Along with that misconception goes the more common-sense and correct view of morality, and Plato uses a kind of double language which may be taken to describe the latter view only but also suggests the former.

It is therefore inevitable that in trying to make explicit the misconception, we should emphasise certain aspects more than he does and demand of expressions which he perhaps uses with popular looseness, that they should do the service of precise language. It is therefore fair to say that it would

be a misrepresentation of the *Republic*, if we did not remember that this error was only one side of the whole contention of the *Republic*.

The misconception may perhaps, without too much injustice to pagans, be characterised as the heathen view of morality. It is, of course, present in modern times also, particularly in the thinking of Nietzsche, of the self-realisation moralists, and of those who identify morality with the pursuit of right values. It has been attributed to the Germans with their ideal of "Kultur". It is the idea that morality consists in the aspiration after "higher things," the idea that the good man is "a good man" in the sense of the Oxford use of the term, a use which by no means implies the possession of moral excellences. The essence of morality is supposed to be the full and harmonious development of all the faculties of a man, especially his intellectual faculties, the living of a life of well-adjusted interests, which will exercise each of these without sacrificing or dwarfing the others. All have a claim to be satisfied though not all an equal claim. There are higher and lower faculties, and therefore the claims are proportionate. The good life is therefore *par excellence* that which satisfies more completely the higher faculties, *i.e.*, it is made up of intellectual pursuits: philosophic, scientific, and artistic interests.

It does not need much elaboration to prove that this is an entirely false idea of the nature of morality. A man may be a very superior person in the sense that all his faculties are fully developed and yet be a thorough blackguard. Nero was a man of some artistic ambitions and yet not a model emperor, citizen, son, or husband, and no doubt many other cases could be cited of people less sensual and more devoted in their pursuit of "higher things" than he, who nevertheless are morally bad.

It might be objected that here we have omitted the development of the moral faculty. But it does not seem right to speak of a moral faculty as something co-ordinate and competing with the rest, and like them capable of being the source of special interests. Morality or character pervades the whole man and all his pursuits and transfuses and gives them value. According as he is moral or not his pursuits have moral value or not, and it is doubtful whether if he is moral they are not all alike valuable without a hierarchy of higher and lower values. On the other hand, if he is not moral, whatever his pursuits are they are equally valueless morally. He may be an intellectual or artistic person or he may be a coarse sensualist. But if he is not moral he is bad

in both cases. Similarly intellectual or artistic pursuits do not make in themselves a man good, neither on the other hand do sensual propensities or even their indulgence if it involves no moral wrong, constitute his badness.

But perhaps this will become clearer in treating of Plato himself.

Plato divides the soul into three *μέρη*: τὸ ἐπιθυμητικόν, τὸ θυμοειδές, and τὸ λογιστικόν. The first is that which is the source of the appetites for bodily pleasures and may be called the appetitive principle. τὸ θυμοειδές is the source of θυμός or spirit, it is the principle of self-assertiveness and acturience. The most important is τὸ λογιστικόν, sometimes called τὸ φιλόσοφον. The latter is: (a) the theoretic intellect: it is that ὃ μανθάνει ἄνθρωπος (581). Its pleasures is that of contemplating truth. It is that which makes the philosopher the seeker after εἶδη; (b) the practical intellect or the moral conscience. It is that which makes the rulers φρόνιμοι and makes them see that their highest good is their duty, their good is the same as that of the city (413); residing in the rulers it leads the city into the path of virtue (428); it regulates the appetites and the desires of τὸ θυμοειδές (431), (439-440); it is that which discerns the better and the worse, τὸ ἀναλογισάμενον περὶ τοῦ βελτιονός τε καὶ χείρονος. Its right work is to rule the soul. It is wise and has foresight on behalf of the whole soul. It announces to the θυμός what is δεινόν and what is not, having knowledge in itself of what is to the interest of each and to the whole which is common to the three (442). Aristotle distinguishes this as φρόνησις.

These three elements perform a double function: (a) they are present to a certain extent in every action of the human being. (β) According as each predominates it forms a special character with special tastes, interests, pursuits. Thus if a man has τὸ ἐπιθυμητικόν predominantly, he will lead the apolaustic or sensuous life seeking money and the pleasures it can provide. The δημιουργοί are such men. If τὸ θυμοειδές prevails he will be a man of action and ambition. He will strive for authority. Such men are the φύλακες, ἐπικουροί or military class. If he has τὸ λογιστικόν stronger than the others, his tastes will be intellectual and he will at his best be the philosopher, the seeker after the εἶδη and truth.

It is important to notice that in this second function, τὸ λογιστικόν can only be taken in sense (a). It is the theoretic intellect or that which makes a man "intellectual". If it is specially developed in us we have intellectual tastes, and devote ourselves to art, science, philosophy. It cannot mean (b) the practical intellect or the moral conscience. That cannot be

the source of special interests or make us efficient in special professions. By a sage, saint, or man of common sense we do not mean a man who has special hobbies or even special talents unless we are to call the conscience a talent. We mean a man who directs himself in a special way, whatever his sphere of life, profession or occupation may be and whatever talents he is gifted with. It is by failing to distinguish clearly these two senses of *τὸ λογιστικόν* that Plato introduces all the confusion there is in his account of morality, and it is the necessity of taking *τὸ λογιστικόν* in the sense of the theoretic intelligence, in order to make Plato's definition of the virtues intelligible, that makes it justifiable to maintain that at the back of Plato's mind there was present the "heathen" conception of morality.

The definition of the virtues is based on the above division of the soul. We need only consider that given of *δικαιοσύνη*. For (1) those given for the rest are practically the same as it; (2) *δικαιοσύνη* really means not so much justice as morality. Hence (1) only one definition is offered to cover all *κακία* being the opposite of that given for *δικαιοσύνη* so that the definition of the latter ought to cover all *ἀρετή*. (2) The things given as what the *δίκαιος* will not do are very diverse, and are in fact the thou-shalt-nots of all morality as such. It would seem therefore that the *δίκαιος* is the moral man and not one who has a particular virtue only. (3) *δικαιοσύνη* is said to be that which enables all the other virtues to come into being. Therefore if you have it you have all the rest, and, as it is implied that it is the only cause, if you have them, or any of them, you have it.

There is justice in the soul when each of its parts *τὸ ἐάντ' οὗ πράττει* and does not interfere with the others, *οὐ πολυπραγμονεῖ*. *τὸ λογιστικόν* rules over *τὸ θυμοειδές* and with its help over *τὸ ἐπιθυμητικόν*. *τὸ θυμοειδές* always carries out its commands. The just man will refrain from cheating, sacrilege, robbery, treachery, unfaithfulness, adultery, neglect of parents, and of the worship of the gods, all because each part in him does its own work concerning ruling and being ruled. *δικαιοσύνη* is a *ἁρμονία* and *συμφωνία* in the soul.

What is the value of this definition? (i) If *τὸ λογιστικόν* is taken to mean the practical reason or the moral conscience, then the definition will hardly stand. When a man goes wrong it is not the case that one element of the soul usurps the function of another. Strictly speaking, it can never do that. The function of *τὸ ἐπιθυμητικόν* can only be *ἐπιθυμεῖν*, of *τὸ λογιστικόν*, *λογίζεσθαι* and one cannot do what the other does. Otherwise we have no longer portions of the

soul, but each portion is the whole man, and it is true that Plato does tend to look upon these *μέρη* as each the complete soul, each, that is to say, is made to think, desire, and act.

By saying that *τὸ ἐπιθυμητικόν* prevails over *τὸ θυμοειδές*, presumably Plato might mean that a man is too appetitive at the expense of *τὸ θυμοειδές* and *τὸ λογιστικόν*. But a man may be appetitive and self-assertive (if that is what *θυμοειδής* means) in the right proportion and be bad. He can indulge his appetites and be sufficiently active or self-assertive, but that will not make him good.

But the chief objection to the definition is that *τὸ λογιστικόν* in the sense of practical reason can never be deposed. What regulates the conduct of the bad man even, must be called practical reason since only it can judge and direct, whether it does this rightly or wrongly. The wrong performance of a function is still performing that function and not another. It is not true then that in the case of the bad man the function of *τὸ λογιστικόν* is usurped by anything else but simply that it does not see aright. What is evil to other men is to the bad man good. What Plato must mean then by saying that *τὸ λογιστικόν* must perform its own function is that it must see aright. But in that case the definition of virtue comes to saying that to be virtuous you must always do what is right, or be virtuous, which is a tautology and not a definition.

There is then no sense in speaking of the soul elements as transgressing their right place in the doing of immoral acts, nor in saying that in moral acts they keep their right place.

If *τὸ λογιστικόν* is the moral conscience it is nonsense to speak of keeping a balance between the exercise of our conscience and the exercise of the other faculties. This would imply that you could exercise your conscience too much. It is saying that you must keep a balance between doing what is right and doing other things, as if right and wrong doing were not a character of all doing but something to be contrasted with other doing.

(ii) But it is plain from the whole book that Plato cannot here mean the practical reason or moral conscience by *τὸ λογιστικόν*. He is thinking of the parts of the soul as the sources of different tastes and interests. When one element of the soul is said to usurp the function of another or to enslave it, it means that the whole man is devoted to certain ends, interests. *τὸ ἐπιθυμητικόν* prevails when the man gives up the whole of his soul to the pursuit of money and to procuring the pleasures which will satisfy his bodily appetites. In this sense *τὸ λογιστικόν* and *τὸ θυμοειδές* are enslaved to *τὸ ἐπιθυμητικόν*, i.e., they work in order to satisfy its desires.

When τὸ θυμοειδές is the usurper, it is its interests and desires that form the ends of the man's life. The man is ambitious and nothing else. He will throw overboard intellectual pursuits and intellectual pleasures with the same readiness as he will deny himself the pleasures of the flesh in order to attain distinction, power, and office. All this is made quite clear in the account of bad characters and bad politics.

But in that case τὸ λογιστικόν cannot mean τὸ ἀναλογισµένον περὶ τοῦ βελτίονός τε καὶ χείρονος, the practical reason or moral conscience, since that cannot be the cause of special interests. It must mean ὃ μανθάνομεν, that δι' ὃ τις ὁλως πρὸς τὴν ἀληθείαν τέταται and its pleasures and interests are intellectual, *i.e.*, of artistic scientific or philosophical pursuits. This too, as we shall see, comes out later in Plato's language though mixed up with other meanings whereby the pleasure of ambition for example if pursued under the direction and limitation of τὸ λογιστικόν or moral conscience is called a pleasure of τὸ λογιστικόν or τὸ φιλόσοφον apparently in the same sense as the pleasure of θεωρία is a pleasure of τὸ λογιστικόν.

Plato must then be interpreted as telling us that morality consists in a harmony or balance between sensuous enjoyment, the pleasures of ambition and of an active life and those of study or theorising. The latter are to be given pre-eminence, though those of the life of the active politician cannot be neglected. The appetites, however, are to be indulged in with great moderation, and Plato is on the whole ascetic and makes the chief function of τὸ ἐπιθυμητικόν that of being suppressed and kept in check by the other two.

That at any rate would be telling us something about morality, and would not be a mere tautology. But it is the heathen view of morality as consisting in an adjustment of non-moral values. But such an adjustment, it is hardly necessary to repeat, cannot constitute morality. It may be that each part πράττει τὰ αὐτοῦ ἀρχῆς τε περί καὶ τοῦ ἄρχεσθαι in the sense that a man may exercise and develop properly all his faculties, become unified, bind all his interests together in a harmony, not allowing any to swamp the others, and yet he may be thoroughly unjust. He may have intellectual interests, assert himself in tyrannising over others and pursue a life of well-regulated sensual indulgence, but this will not make him just.

This view of morality, however, becomes even more prominent in the 8th and 9th books where Plato is discussing bad politics and bad characters. His tendency is to look upon deterioration of character as a gradual declension from philosophic and scientific occupation to sensual licentiousness.

In the timocratic man and timocratic state τὸ θυμαιοδές rules. Intellect is despised, wise men are distrusted, education is neglected and military occupations are supreme, and the greatest honour is paid to them. The timocratic man is ἄμουσος, φίλαρχος and φιλότιμος.

In the obligarchic man and state τὸ φιλοχρήματον is enthroned. The ideal is the worship of Mammon.

The democratic man satisfies all his desires in rotation. He is a man of very diverse interests, but makes no distinction of value between them.

The tyrannical man is enslaved to an ἔρως, one all-powerful appetite which blinds him to everything else and makes him a monomaniac possessed by an *idée fixe*.

It is fair to observe that this difference of tastes and occupations is not clearly spoken of as being badness itself but as being the cause of badness. But (1) the causal relation even, is neither obvious nor necessary. A man may devote himself to the accumulation of wealth only, but do so honestly. He may hold the pleasures of the body to be the best as compared with those of ambition or of intellectual work, and yet not sacrifice morality to them. Certainly very many excellent people hold the pleasures of the intellect in very low esteem, but they are none the worse morally for that. Nor is it clear why the democratic man should be placed so low in the scale. He answers to the ideal of an all-round man, who morally may be good or may be bad. There is certainly no direct connexion between being an all-round man and being morally bad. Plato's objection that he keeps no τάξις between his pleasures will not stand. He keeps the only τάξις that is possible, *i.e.*, he indulges them in turn, taking care not to indulge any to such an extent that it will make him unfit to enjoy the rest. As Plato says, at one time he philosophises, at another he gets gloriously drunk. But that is the only thing he can do if he is to enjoy both pleasures, and there is nothing immoral in his conduct although, of course, both his philosophising and his drinking may be equally immoral. But the immorality would not consist in giving drinking a claim beside philosophising; it would consist in carrying out either in a way that would entail injustice or cruelty to others.

(2) The relation is not stated as a merely causal one, but it is implied, owing to the double sense of τὸ λογιστικόν, that the abandonment of intellectual occupation = the abandonment of conscience. Thus no type of bad character is given in which the intellectual interests oust all the rest, simply because if τὸ λογιστικόν = the moral conscience, it cannot

set up interests of its own which will expel the others. But since τὸ λογιστικόν also = the theoretic intellect it is obvious that the δεινὸς ἔρως which makes the worst type of man, the τυραννικὸς ἀνὴρ, may be an ἔρως of τὸ λογιστικόν. The *idée fixe* which makes a man morally blind may be a scientific or philosophic passion.

Most instructive is the discussion about the comparative value of pleasures. The question is τίς ἡδιστος βίος; At the end of the discussion it is decided that ὁ ἀγαθὸς τε καὶ δίκαιος νικᾷ τὸν κακὸν τε καὶ ἄδικον (581 ff.). But the palm of supremacy throughout the discussion is really awarded to the pleasures of the theoretic intellect, after the pleasures have been divided into three kinds, each peculiar to one element of the soul. The element to which the greatest, truest, or highest pleasures are attached is ὁ μανθάνει ἄνθρωπος. πρὸς τὸ εἰδέναι τὴν ἀληθείαν ὅπως ἔχει, πᾶν αἰεὶ τέταται καὶ χρημάτων τε καὶ δόξης ἡκιστα τούτῳ μέλει. It is φιλομαθὲς καὶ φιλόσοφον. ὁ φιλόσοφος thinks other pleasures merely ἀναγκαῖαι. He is always devoted to contemplating truth and his occupation is learning. He has ἐμπειρία, φρόνησις, λόγος. He is μετὰ φρονήσεως μόνος ἐμπειρος. He places the pleasures of τὸ θυμοειδὲς second and those of τὸ φιλοχρήματον last. His is the true pleasure because it is a filling of the more real, the mind, with what is more real: δόξα ἀληθής, ἐπιστήμη, νοῦς, πᾶσα ἀρετή (585).

Those who indulge in spurious pleasures are φρονήσεως καὶ ἀρετῆς ἄπειροι, εὐωχίαις δὲ καὶ τοῖς τοιούτοις αἰεὶ συνόντες (586). Like cattle always looking downwards and stooping earthwards and towards the table, they feed and have their fodder and mating, and for greed of these things they kick and butt each other with iron hoofs and horns and kill each other through desire that cannot be satisfied, since they fill a leaking part of themselves which is not real, with what is not real.

The same occurs with the man who satisfies τὸ θυμοειδὲς through envy caused by ambition, or violence due to contentiousness, or anger due to bad temper, following after satiety of honour and victory and anger ἀνευ λογισμοῦ τε καὶ νοῦ (587).

But it is possible for the desires both of τὸ φιλοκερδὲς and of τὸ φιλόνηκον to obtain what are for them the truest possible pleasures and most their own if τῇ ἐπιστήμῃ καὶ λόγῳ ἔπονται καὶ μετὰ τούτων τὰς ἡδονὰς διώκουσιν ὥς ἂν τὸ φρόνιμον ἐξηγῇται.

So when the soul follows the philosophic elements and is not at strife, each part of the soul can do its own work in general and be just, and also, moreover, each can reap its own pleasures in the best and truest shape possible. But when

any of the others gains predominance its fate is not only not to gain its own pleasure but to force the others also to pursue an alien and untrue pleasure.

What is most removed from philosophy and reason is most likely to bring about such results. That is most removed from reason (λόγος) which is most removed from law and order: αἱ ἐρωτικάί τε καὶ τυραννικαὶ ἐπιθυμίαι. Least removed are αἱ βασιλικάι τε καὶ κόσμιαί.

It is obvious from the above quotation that (1) the moral life *par excellence*, ὁ ἀγαθός τε καὶ δίκαιος βίος is distinctly identified with the life of the φιλόσοφος, i.e., of the scholar. So that justice is a matter of occupation, a special profession or the pursuit of "higher things". It would therefore seem that doing anything else but philosophising can be only secondarily just. τὸ λογιστικόν clearly means τὸ φιλομαθές the theoretic intellect.

(2) But the other sense of τὸ λογιστικόν reappears when it is said that the other elements may get their truest and proper pleasures if they pursue those indicated by τὸ φρόνιμον which here must mean moral insight, and it is that which must rule supreme in the just life and not the scholar's tastes. Hence we have distinctly the ambiguity of the definition of justice as the proper hierarchy of the elements of the soul which means (a) the intellect has authority, i.e., intellectual pursuits are to predominate; (b) the authority is to be that of the moral conscience which cannot have particular tastes.

(3) The bad life for Plato is the sensual or ambitious life, a life directed to the satisfaction of the appetites or of ambition. This he implies, although what he says is that the morally bad life is a consequence of this wrong orientation: in the one case διὰ πλεονεξίαν τῶν εὐωχιῶν, etc., in the other ἢ φθόνῳ διὰ φιλοτιμίαν ἢ βίᾳ διὰ φιλονικίαν. According to Plato either is obvious: τὸ ἐπιθυμητικόν and τὸ θυμοειδές are satisfied by men φρονήσεως καὶ ἀρετῆς ἄπειροι and ἀνευ λογισμοῦ τε καὶ νοῦ. By this he means partly that these men are not intellectual. If it were objected that although they lead non-intellectual lives they can be moral he would take refuge in the other sense of τὸ λογιστικόν = moral conscience and say they as acting wrongly are doing what τὸ λογιστικόν would condemn. But if this ambiguity be removed it must be repeated again.

(a) The difference between the just and unjust life cannot consist in the difference of non-moral values. The content of the unjust life may be highly intellectual pursuits; yet the desire of the φιλόσοφος may become a τυραννικός ἔρως. It is possible to pursue the pleasures of τὸ φιλόσοφον, ἀνευ λογισμοῦ

τε καὶ νοῦ, *i.e.*, without righteousness, just like those of the other elements of the soul. In satisfying τὸ λογιστικόν in one sense, *i.e.*, that of the theoretic intellect, we may be leaving it unsatisfied in another, *i.e.*, that of the moral conscience.

(β) It seems more plausible to maintain that the difference between non-moral values may make the pursuit of some of them rather than of others, to be the cause of the unjust and just life respectively. It may be urged that the other desires if very strong may lead us astray and make us morally blind, while the desire to know cannot make us do anything wrong. But we can object that as potential causes of wickedness the desires of all the elements of the soul stand on the same level, for :—

(1) Either the desire to know, as such will only make us learn or contemplate and will lead us to do nothing else at all, morally either bad or good. In that case we shall be not moral but simply non-moral.

(2) Or if it is a spring of other than intellectual activity it may lead us astray and make us morally blind just as any other desire when strong upon us. It may obviously be the cause of sins of omission if not of those of commission. For it may be our duty to do other things beside philosophise, *e.g.*, to take part in politics and love of philosophy can keep us from doing our duty. This Plato himself indirectly admits when he says that the philosophers may have to be compelled to descend again into the cave.

All this is, of course, due to Plato's failure to make the distinction which Aristotle made between φρόνησις and σοφία. Hence it is that for Plato, apparently the moral question is "shall I be intellectual, ambitious, or a miser"? and the moral conflict is always between the desires for study, honour, and money, and the desires of the intellect are never those, which in the struggle are to be overcome. For they are τοῦ φρονίμου and τοῦ λογιστικοῦ and they can never be ἀνευ λογισμοῦ τε καὶ νοῦ.

It is this fallacy which pervades Plato's argument, whereby he seeks to connect virtue with the knowledge of ideas. Morality depends upon knowledge, not practical knowledge, but philosophical or metaphysical knowledge.

There is, of course, much to say for the view that an all-round development of the faculties is essential for the perfect man. But it is false to identify this with morality. So that on the other hand there is something to be said for the view, that all talents, capacities, or powers are ἀδιόφορα. They are merely ἀναγκαῖα which may be used *ad maiorem Dei gloriam*,

but on the other hand may all also be used in the service of the devil. It is difficult to say in what sense any of them is higher than others.

But certainly not in a moral sense. For except in the good man they are all bad. It is but a poor moral palliation of a bad man to say that after all his wickedness is due to his love of power rather than his love of bodily pleasure.

On the other hand, when they are present in the good man they are all equally legitimate and necessary and equally high. They fit into a unity as the parts of a perfect work of art do, of which we cannot properly say that any is more indispensable than another to the character of the whole, and which, when taken apart from the whole work of art are all equally inartistic.

So when we talk of these pleasures and pursuits in abstraction apart from their being in the good man, whatever we may mean by calling one higher than another, the classification or comparison is not moral.

The idea that morality consists in the pursuit of certain non-moral values is a caste view of ethics. It lies behind all caste distinctions, of nation and of class, and whatever the basis of division is, birth, land-owning, military occupation, wealth, intellect. The basis is different in different ages and places. But in all, the qualities and talents required in a certain sphere of life are regarded as making a human being *par excellence*, and those who do not possess them are looked upon as only secondarily human. Plato is distinctly a caste-lover, an advocate of the aristocracy of intellect. Hence the prominent place of the caste system in his view of the ideal polity. True virtue, however, is the most democratic of all things, and that fact is the basis of all democratic theories. Through it we can say "a man's a man for a' that," and abolish all distinctions and degrees whether of wealth, bodily prowess, or even intellect. We regard a human being as an end in himself endowed with some value because capable of moral virtue, and on this ground we object to slavery. To the ancients, however, *ἀρετή* meant efficiency, talent, or genius, of which some men are capable only to a very small extent. From that sense, *ἀρετή* in the sense of moral excellence was not clearly distinguished. Hence Aristotle could justify slavery. It is that confusion which is still present in the *Republic*.

V.—SENSE-KNOWLEDGE (II.).

BY PROFESSOR JAMES WARD.

PERCEPTUAL RELATIONS.

§ 5. The exposition of demonstrative propositions introduced us, it will be remembered, to the distinction of 'this and that' as involving also the distinctions of 'here and there' or—it may be—'now and then'. We here find ourselves brought up against a new kind of logic recognising terms and propositions of which the old logic took no account, *viz.*, the logic commonly called 'the logic of relatives'. Relation is perhaps the widest of all the categories with which epistemology has to deal: so Locke asserted that all things are capable of relation, and Schelling even held relation to be 'the only primary category'. At any rate it includes many special relations of very diverse kinds. Yet in one respect all relations are alike: they all rest upon a *fundamentum relationis*, which—as Locke said—implies always [at least] 'two things or ideas,' either in themselves really separate, or considered as 'distinct'. Now 'these two things or ideas' can always be indicated as 'this and that': the simplest relations, then, will fall within the domain of sense-knowledge, be concerned, that is to say, with sense-data indicated in this way. We must now, first of all, make clear how such perceptual relations are possible, and then try to ascertain what they are, and what in themselves they directly imply.

As to the first point—we have already seen that sense-data are not isolated items but are changes in a presentational continuum.¹ But change of presentation is by no means to be identified with the presentation of change. It is indeed a long step from the presentation of the one, which is but a particular sense-datum, to the other, which is a general concept: in the language of Locke, the knowledge of the one presupposes sensation merely, the knowledge of the other presupposes 'reflection'. But when we know what change means we can understand too that, to repeat our former reference to Kant,² despite the superficial paradox, all change

¹ Cf. I., § 3, p. 269.

² Cf. I., § 2, p. 265.

implies something that persists. This something, as we have said, is here the presentational or objective continuum, which persists by continuously changing. Kant in the same passage has drawn a useful distinction between change (*Veränderung*) and alteration or rather alternation (*Wechsel*). An event may be said to begin and end, but is not, in itself, a change. So regarded, sense-data do but alternate one with another: this one comes, that one goes. They are changes, or more exactly, partial changes only as occurring within the objective continuum of the subject to whose experience they belong. Herein alone lies the possibility of any this and that being distinguished; and till they are distinguished any knowledge of further relations, subsisting between them or founded upon them, is out of the question.

As to the various perceptual relations themselves—the two most fundamental are the two already involved in the distinction of this and that itself, and they are for epistemology perhaps the most important, the spatial and temporal relations, that is to say, implicit in here and there, now and then, *i.e.*, in the old Aristotelian categories, Where and When. As these are topics that must occupy us at some length, it will be convenient to consider first certain other perceptual relations less complex and calling for less discussion.

We may begin with perceptual processes that implicate *comparison*, and in tracing their gradual development observe how they lead on to the intellectual processes in which comparison is explicit. So we may hope in this case to establish the continuity between sense-knowledge and thought-knowledge that Kant allowed might exist but could not find. To recognise this as red, that as green, *implies* the statement "this is different from that"; but it clearly does not imply any such actual comparison as the *assertion* of difference would do. It is also obvious that one could not apprehend both red and green, if they were not, in fact, different. But there was a time for the psychological individual—if not for any concrete individual who can now perceive them¹—when red and green were not distinguished. All such differentiation of sense-data, psychologically regarded, is a gradual process due, as already said,² to subjective interest or selection: though an objective process, it is one that is subjectively determined. This progressive differentiation or increasing diversity of advancing experience fully

¹ But what is here said of the psychological individual has its counterpart in the experience of the concrete individual also. Cf. *Psychological Principles* (on the *primum cognitum*), pp. 200 f.

² I., § 1, p. 262; cf. *Psychological Principles*, p. 415.

accounts for what Lotze called 'the primary universal'—the epistemological significance of which he was perhaps the first to see. The point is that the primitive sensations of sight, sound, etc., are related to their subsequent differentiations not as what is general is related to what is special, as in the case when we merely logically subordinate a lower class to a higher: they are really related as branches are to the trunk from which they spring, or as species are really related to the genus from which they originate. The primitive generality, in short, is not a logical universal: for it is not a *result* of abstraction but a *basis* for further determination. It preceded, and it persists in, the differentiations that emerge later as its specialisations.¹

The continuity of developing experience, then, entails this emergence of perceptual relations in which comparisons are only implicit, are, at any rate, not explicit as those are which result later when deliberate intellection is evoked.² But the significant fact here is that the comparisons in both cases are the result of subjective selection. Every creature develops most the senses that best subserve its self-preservation: these for it become its higher or intellectual senses: hence the dog has a smell-brain and man a sight-brain. The *beginning* of the transition from the comparison implicit in the differentiations of the primary universal of perception to the comparison that becomes explicit when universal concepts of relations are available—this beginning, we may see exemplified at every turn in the behaviour of the higher animals, when they learn by 'bitter experience to look before they leap'. A fox who has once escaped from a trap will not be caught again, if the same sort of snare is used; recognising the resemblance between the old situation and the new he will refrain from touching even a more tempting bait.³ But there is no need to enlarge further on this point here. The continuity between perceptual experiences and conceptual—despite the many missing links—is, as regards comparison, after all hardly questionable; and if so, then too it can hardly be denied that the later are impossible without the earlier, which though insufficient seem at least to be indispensable.⁴

¹ Cf. Lotze, *Logik*, 1874, §§ 14. 15; *Psychological Principles*, pp. 328 ff.

² They might perhaps be called 'tied relations' on the analogy of 'tied ideas'. As to the latter cf. *Psychological Principles*, pp. 184 ff.

³ Cf. *Psychological Principles*, p. 187.

⁴ It is probable that Hume had these perceptual relations in view when he too hastily concluded that all relations involve resemblance and that difference—meaning disparity—is not a relation (*Treatise*, Green and Grose's, ed. i., pp. 322 f.). It is certainly true, as I have said elsewhere,

"that, (1) if we had only a plurality of presentations absolutely different

Experiences such as those just described bring us naturally to another class of relations, which—though distinctly recognised as such, only at the thought level—nevertheless affect behaviour at earlier stages, relations of *contrariety* or *incompatibility*, that is to say. Any sportsman who has ever tried to entice water-fowl within gunshot by trailing strings of dummy decoys behind his boat and imitating, as best he could, the calls of real birds, knows how seldom these wiles succeed. Long before an unsuspecting flight gets within the danger zone the fraud is discovered, and off they wheel. It is as if they said: "Here are the forms but none of the movements of living things. One of us might utter cries something like those, but he would not be invisible some twenty yards away from the rest, all of whom were mute. The whole affair is uncanny." So we might attempt to interpret in human language their perception of incompatibility; for, as Trendelenburg has happily said, "what we call contradiction is the *expression* of the altogether incompatible, that of itself mocks at all mediation".¹

But the contradiction implied in the scene we have just attempted to describe is one involving statements which refer to a single concrete situation. The contradiction, however, with which logic deals, is, of course, not restricted to, nor indeed mainly concerned with, such concrete cases. Logical contradiction, too, it is important to notice, is a more complex relation than the relation of comparison with which we have already dealt; and this complexity involves further differences which are not without their difficulties for our present inquiry. In comparison we have a relation subsisting between two *terms*, eventually two sense-data, both of which are found to be either like or different. Hence this relation is described as symmetrical. In contradiction the relation involved is between two *propositions*; and what characterises the one is called the logical opposite of what characterises the other. Oppositeness, too, implies difference, but not a difference applicable to its *relata* in the same sense. So far the relation here is a symmetrical, or as some would prefer to say, there are two relations.² Further likeness and difference are in the

we should have no continued consciousness at all; and (2) that we never compare—although we distinguish—presentations that seem absolutely disparate, as *e.g.*, a thunderclap and the shape of a brick" (*Psychological Principles*, p. 330). Thus Hume's statements at least bear out our contention that Lotze's first universal is the root from which all perceptual comparison springs:

¹ *Logische Untersuchungen*, 2nd ed., 1862, ii., p. 152 *fin*.

² Cf. London is E. of Bristol, implying Bristol is W. of London.

end indefinable: to know what they mean we must perceive what they are. But if we ask for the meaning of contradiction, a satisfactory definition is thought to be possible, e.g., that two propositions, such that what the one asserts the other denies, and *vice versa*, are contradictory. Moreover, the familiar 'contradictory opposition' of logic involves a universal proposition referring not to one thing but to a class of things, while the 'contrary opposition' of logic—even though it ceases to be formal when one thing is in question—is still distinct from the real contrariety or incompatibility of perception, where not only the thing but the time and the place are the same. Altogether, then, it may seem that we cannot connect logical opposition with perceptual incompatibility. For circumstances of time and place do not fall within the domain of logic, it is said; and so the sharp line dividing thought, with which logic is concerned, from perception as concerned with things, thus becomes manifest. To talk of a sharp line here is, however, just to beg the question, not to face it.

Is, then, Trendelenburg's statement faulty? Not if we understand him as meaning that perceptual experiences of incompatibility are the presupposition, of which contradictory propositions are the explicit 'expression'. Anyhow this seems to be the fact, and—though generally overlooked—this fact has not lacked recognition altogether. Least of all was this the case with Aristotle, on whom the so-called *logical* principle of contradiction is usually fathered. But the principle on which Aristotle insisted was an *ontological* one, viz., that "the same attributes cannot at the same time and in the same respect belong and not belong to the self-same thing".¹ This principle 'the most certain of all' was, he held, a 'presupposition' of what afterwards came to be called 'logic'.² Meinong, who has given us a careful study of this important relation, concludes by saying: "There remains, then, nothing else to be done except to take the evidence for judgments of incompatibility as an ultimate fact (*Thatsache*)".³ It is this fact, 'mocking at all mediation,' with which experience at the perceptual level may confront us, and that experience at the conceptual level formulates and generalises as 'what we call contradiction'. J. S. Mill bears testimony to the same fact. "That blue is not green," he has said, "involves no contradiction." We could believe that a blue

¹ *Metaphysica*, IV., iii., Bekker, p. 1005b.

² Cf. Prantl, *Geschichte der Logik*, i., 1855, pp. 131 ff.

³ *Hume-Studien*, II., 1882, p. 114; *Gesammelte Abhandlungen*, ii., 1913, p. 109.

thing may be green, as easily as we believe that a round thing may be blue, if experience did not teach us the incompatibility of the former and the compatibility of the latter.¹

But from this reference to experience and to facts it would be a mistake to conclude that the perceptual knowledge of relations as such is itself purely empirical and *a posteriori*. To do so would be to confuse sense-data, which are the *relata*, with that object of a higher order, the *relatio*, which is founded upon them. A relation is never itself a sense-datum, though it always ultimately presupposes sense-data: to miss this point is to ignore the difference between a complete proposition and the terms it necessarily implies. The only pertinent question is whether such a proposition as, say, red is different from green—or, better and more generally, this is different from that—is independent of all other experiences beyond what is directly given in the *comparata* themselves; in other words, whether these furnish all the evidence that such a judgment requires. If they do, such a judgment is as much entitled to be called immediate and *a priori*, i.e., non-empirical, as any judgment whatever. It would, therefore, be needless and even meaningless to wait for further evidence, either inductive or deductive. And assuredly—provided the data themselves are definite—one would as little think of seeking other instances of red and green, before pronouncing this red and that green to be different, as one would of waiting for a second instance of $2 + 2$ before pronouncing its sum to be 4.² It may well seem rash to place two such instances on a par: to do so is to invite an objection that may seem serious; for are not mathematical propositions necessary or apodeictic, whereas propositions concerning sense-data can never be more than assertory. What warrant then have we for calling them *a priori* or non-empirical? "Necessity and strict universality," Kant said, "are sure signs of an *a priori* knowledge; they also belong inseparably to each other . . . and each by itself is infallible." Accordingly, he felt at liberty to appeal now to one, now to the other, as convenience suggested.³ And he was clearly free to do so, for strict universality is inexplicable unless we presuppose objective necessity, and this being

¹ *Examination of Sir W. Hamilton's Philosophy*, 3rd ed., 1876, p. 470.

² It is true that some persons fail to perceive that a given this and that differ in respect of a certain quality, though their difference is manifest to others; it is also true that there is no such uncertainty in the case of $2 + 2$. But such variations in sensory differentiation are irrelevant here. When the sense-data are definite the judgment in the former case is, if anything, the more immediate and certain of the two.

³ *Critique*, B, p. 4.

present, that can follow. For us, then, it may suffice here to consider only the former. By objective necessity—or, better, objective necessitation—we mean that determination by the data immediately given, which compels our assent by its self-evidence and leads us to speak of the knowledge that it affords as objectively necessary or *a priori*. In this respect we find the two instances on a par.¹

But there are some who seem to think that a perceptual judgment—like all judgments—presupposes the so-called ‘laws of thought’. It doubtless presupposes sundry things, but presuppositions are not necessarily grounds. Such a judgment, for example, presupposes the experient who makes it; but it is evident, not because he makes it: he makes it, because it is evident. If he judges at all, he *must* judge as he does on the ground of the sense-data before him; and beyond these he need not go, and at the perceptual level cannot go.² Since sense-knowledge is possible without thought-knowledge and invariably precedes it in order of time, it seems pointless to say that thought-knowledge is the *logical* presupposition of all knowledge, true though it is. The thinkers to whom I refer should, and usually do, go further; and maintain that thought determines things, not things thought. But whatever be the sense in which this may be true, it could hardly decide the question for the moment before us, the question, that is, as to the continuity of *knowledge*. At any rate it seems plain that we have a *a priori* perceptual knowledge before we have a *a priori* conceptual knowledge, and that this order cannot be inverted.³

PERCEPTUAL ORDERS: (I. SPACE).

§ 6. We may now return to the distinction of this and that as being fundamental to all relations. As already said, it implies the differences of order that we speak of as ‘here and there,’ ‘now and then’—differences that we proleptically distinguish as respectively spatial and temporal.

¹ Cf. Sigwart, *Logik*, i., § 31, 7; and Meinong, *Ueber die Erfahrungsgrundlagen unseres Wissens*, 1906, § 1.

² This is the burden of Locke’s famous chapter on Maxims (cf. *Essay*, IV., vii., § 4 *fin.*, §§ 8, 9, 19).

³ But there is still a possible objection to the foregoing discussion that it may be well to notice. Terms such as different, like, incompatible, it may be said, are general and abstract: they are therefore beyond the range of any knowledge confined to the sensory level. It is true, they are; but the specific experiences for which they stand are not: these can be psychologically described (cf. *Psychological Principles*, pp. 87, 331 f.) We can, with care, although it is not always easy, use language to describe sense-knowledge without being guilty of the so-called ‘psychologist’s fallacy’. Cf. I., p. 257.

In the spatial order 'here' for us is absolute, as 'now' is for the temporal order. Again, 'there' is continuous with 'here,' since both fall within the extensity of the primary or presentational continuum. In the temporal order, in like manner, 'now' and 'then' both pertain to the secondary or representational continuum we call 'the memory-thread'. The gradual differentiation of these continua into what are termed—again proleptically—'local signs' and 'temporal signs' respectively, provides us with the *fundamenta relationis* for those 'objects of a higher order' which we come at length to recognise, such relations, that is to say, as position, distance, direction, succession, simultaneity, and many others. Only to an experience that has advanced thus far are we entitled without anticipation to attribute any perception of space and time. But so long as any one of those relations is merely perceived it is confined entirely to the particular sense-data concerned and lacks any immediate implication of 'pure' space and time as 'the infinite wholes' which Kant conceived to be 'given' *a priori*, and of which all spatial (and temporal) relations were but so many limitations. At this point we may interpolate a remark:—There are few distinctions more frequently overlooked than that between the exposition and the acquisition of knowledge, emphasised, though it was so long ago, by Aristotle. Now, however 'logically' *a priori* pure, empty, homogeneous space and time may be for the former, the *ordo ad universum*, they are certainly not chronologically *a priori* for experience, the *ordo ad nos*—in other words, they are not 'given'. From the standpoint of experience, so far from Kant's pure forms of intuition being the *sine qua non* of our perceptual knowledges of spatial and temporal relations, it would appear that these are the indispensable presupposition of them. The empty space and time of thought-knowledge seem, in fact, to be the emptied space and time of sense-knowledge, whatever they may be beside. Kant was right in maintaining—what after all is but a truism—that space or time, "that in which sensations are ordered cannot be itself sensation";¹ but he was too hasty in assuming that these 'forms' were independent not merely of *particular* sense-data, but of *any* sense-data whatever. A regiment is not a soldier, but it would be impossible without soldiers, impossible, too, unless soldiers were such as to be capable of being regimented. If sense-data had no characteristics except intensity and quality, how could they be formed into a spatial or temporal order? The seeming impossibility of solving this question—at least as

¹ A., p. 20; B., p. 34.

regards space¹—would go far towards accounting for the uniform failure to explain spatial perception on the part of the psychologists who, in common with Kant, have ignored extensity as a characteristic of sense-data.

Recognising extensity, however, as itself a *quantum continuum*—and about that there seems to be no doubt—we may now briefly recall the essential factors in the genesis of spatial perception, to begin with that:² we shall then be in a position to discuss the connexion between spatial percepts and spatial concepts which epistemology has been wont to consider alone.

Extensity we regard as pertaining to the presentational continuum as a whole: it is involved at the very beginning of experience in what is technically known as *cœnæsthesis*, *genreal sensibility* or *body-sense*. The more the body as a sensitive organism is structurally diversified the more any specific sensation, that of being touched at one place, say, differs from a like touch at another. These differentiations within the originally undifferentiated, or less differentiated extensity, are 'the local signs' referred to above. The mere ubiquity of the primitive *cœnæsthesis* thus becomes a continuum of fixed and coexistent places, or *τόποι*, severally distinguishable, but devoid as yet of any recognised spatial relations. But now the more the mobility of the organism is developed the more possible it becomes actively to touch a spot that has just been passively touched. Such movements, however, regarded by themselves, imply nothing more than a continuous change which the experient is able himself to produce. The successive 'moments' of this change—the several *kinæsthetic* sensations, as they are technically called—we may analytically describe as 'positional signs,' since they correspond to the actual positions through which the limb is moved; but taken alone they afford no perception either of motion or of space. So taken, all the knowledge they could yield would be that of a sequence of impressions which we can produce and reverse—a temporal series comparable with that of singing up and down the musical scale. They are not coexistent, as local signs are, though like these they are not interchangeable. But whereas the former constitute a single simultaneous 'manifold' or ubiquity the

¹ As regards time, which psychologists have too much neglected, the case is even worse, as we may presently see.

² There is something to be said for beginning with time, since this is implicated in all experience and, therefore, in the perception of space. Still as temporal relations are not cognised till later, it seems, on the whole, best to follow the usual practice of beginning with space.

latter consist of diverse successive manifolds. Only as these positional signs are perceptually complicated with local signs do they acquire those relations to each other which we know as distance and direction; the one answering to an interval in the same positional series, the other to different positional series which we might call perceptual co-ordinates. Till then we have no explicitly spatial percepts; for only then the *topography* of the differentiated sensory continuum is supplemented by the *itinerary* of definite active movements. Thus sense-data implicating time appear to be involved in the perception of space.

From this psychological standpoint we may now prepare to discuss the connexion between spatial percepts and spatial concepts. It is not enough to say that in the former we are confronted by a filled space, which in the latter we imagine emptied. Nor is spatial perception to be put on a par with the simple perception (or recognition) say of a colour or a sound. To speak of a 'simple' or 'original' idea of space as given by sight and touch was a grievous mistake of Locke's and involved him in difficulties from which he failed to escape.¹ Space is not a sense-datum, which we can perceive as we may 'red' or 'rough': in other words, there is no spatial perception corresponding to the proposition, 'there is space'. If they could be expressed in language, single spatial percepts would yield relational rather than predicational propositions, *viz.*, such as require the use of prepositions or adverbs—above, below, before, behind, near, to the right, to the left, etc., etc. In such percepts, what is primarily 'intuited,' as Kant would say, is just a particular relation of two-sense-data; and these relations—we repeat—so far from presupposing any 'pure intuition of space' as an infinite, homogeneous (or empty) continuum (*Grösse*), are themselves, it would seem, the means by which alone any 'intuition' of space at all is elaborated; and elaborated *pari passu* with them. The only homogeneity they presuppose is the extensity of the presentational continuum conceived as—at its lowest limits—still awaiting differentiation. This extensity we may well regard as an indispensable condition, but one insufficient by itself to explain the perception of these relations within it.

Further, these spatial relations, as perceived, are relations in a very peculiar sense. Distinctions of place and position, relations of distance and direction are neither to be resolved into, nor to be deduced from, logical relations. The failure of Leibniz to recognise this fact is the counterpart of Locke's

¹ Cf. *Essay* II., xv., § 9, and the note from the French edition of Coste usually appended by English editors.

failure to see that these 'modes of space,' as he called them, could never arise at all if space itself were a 'simple idea'. In one word, as Kant has said of them, "Leibniz intellectualised" exclusively, and "Locke sensualised" exclusively: the one ignored the difference between concept and percept, the other the difference between percept and sense-datum.¹ Kant avoided Locke's error by maintaining that space is 'a form,' not a sense-datum: he avoided Leibniz's by maintaining that space is 'a form of intuition,' not a form of thought. But he erred himself in regarding this 'form' as subsisting independently of experience and 'lying ready in the mind'. We have in this view just the old metaphor of seal and wax over again; but now it is the mind that impresses the shapeless matter of sense which it receives, instead of being itself a *tabula rasa* to be 'impressed by ideas'. But what did Kant here understand by mind (*Gemüt*)? Just the totality of capacities and faculties which—according to the psychology then in vogue—the experient subject has, uses and enjoys. In the present context, however, it is the capacity which he called *Sinnlichkeit* or 'receptivity' with which he is concerned. Sense-data are received into the forms of space and time: that for Kant is so far just an ultimate fact. They do not bring a form of any sort with them: how could they, any more than clay brings with it the form of the mould that receives it? And if the experient subject is here only passive or receptive, then, though the forms are his, he can have done nothing to acquire them.²

Anyhow, whatever its source may be and whatever else it implies, form always implies definiteness. But what title, we may ask, has that 'pure space,' in which nothing whatever is intuited, to be called a *form* of intuition? Poincaré called pure space, since it admits of many diverse forms, an '*amorphous* continuum'. And surely this is true of 'space necessarily presented as an infinite *given* magnitude'? Yet this, be it remarked, is the one positive conclusion of Kant's

¹ Cf. *Critique*, A., p. 271; B., p. 327.

² To talk of 'an original acquisition,' as Kant was driven by certain of his critics to do, is verily a *Nothbegriff*, borrowed from jurisprudence and quite meaningless here (cf. Kant's *Streitschrift gegen Eberhard*, entitled *Ueber eine Entdeckung, usw.*, Werke, Hartenstein's ed., vi., pp. 37 ff.). But it shows the influence of the Leibnizian doctrine of innate powers; and it shows too how utterly foreign to Kant's mind—as to 18th century thinkers generally—was the idea of a genetic development of experience: notwithstanding his description of his own philosophy as a sort of 'epigenesis of the pure reason' (B., p. 187) and his appreciative remarks on Blumenbach's biological epigenesis (*Critique of Judgment*, 81). Cf. Vaihenger's *Commentar*, ii., pp. 90-94.

so-called 'metaphysical exposition of the concept of space'—the rest of it consisting of proofs that space is not a concept at all. Nevertheless, Kant defines this form as "that which makes" (ed. A.) or "can make (ed. B.) that the manifold of the phenomenal (*die Erscheinung*) is arranged (geordnet) in certain relations (*Verhältnisse*)".¹ Not one word has he vouchsafed so far, *i.e.*, in the first part of his *Critique*, the so-called Transcendental Aesthetic, to show how this is possible. Well might he suggest in the *Prolegomena* that here is something which 'tief verborgen liegt,' lies deeply hidden.² When, however, he comes to deal with this topic in the second part of his *Critique*, in what he called the Transcendental Analytic, a wholly new concept comes to the fore, which in the Aesthetic was not even mentioned—to wit, synthesis (*Verbindung*). Here he begins by saying: "The manifold of presentations may be given in an intuition which is merely sensuous (*sinnlich*) or nothing but receptivity, and the form of this intuition may lie *a priori* in our presentative faculty, without however being anything more than the manner in which the subject is affected. But the *conjunction* (*Verbindung*) of any manifold, whatever it be, can never arise through sense: nor, therefore, can it ever be found involved in the pure form of sense-perception. . . . Among all presentations, *conjunction* is the only one that cannot be given by objects but must be set up by the subject itself as the result of its own activity."³

No change of front could well be more complete; no wonder, then, that at length attempts to reconcile them have as good as ceased.⁴ Here we need only signalise the main divergencies. On the one side we have a *ready-made form* (a form into which sense-data are passively received) due equally with our five senses to our natural constitution (*unsere Naturbeschaffenheit*) and for aught we know other beings may in both respects be constituted differently.⁵ On the other side we have an *active synthesis* essential to any experience at all and therefore common to all finite subjects alike: without this we should have no knowledge whatever.⁶ Again,

¹ *Critique*, A., p. 20; B., p. 34. ² *Prolegomena*, § 6. ³ B., p. 130.

⁴ Cf. Prof. Norman Smith's *Commentary to Kant's Critique of the Pure Reason*, 1918, pp. 88 ff.

⁵ Cf. Kant's latest, much-neglected summary of his philosophy, *Die Fortschritte der Metaphysik*, *usv.*, Hartenstein's ed., viii., pp. 527 f.

⁶ On which account it should be noted, by the way, that Kant calls this general synthesis (*Synthesis überhaupt*) 'transcendental synthesis'. It ranges between the two extremes of what he sadly miscalled 'productive imagination' and the purely intellectual synthesis of the categories as merely thought. Cf. A., p. 120; B., pp. 103 f., pp. 165 f.

on the one hand, we are told that space is 'presented as an infinite *given* magnitude (Grösse), containing a multiplicity of presentations within it, but only as so many limitations (*Einschränkungen*) of it'.¹ On the other hand, we are told that "an extensive magnitude is one in which the presentation of the parts makes the presentation of the whole possible and therefore necessarily precedes it". "I cannot," Kant continues, "figure to myself a line, however small it be, without in thought drawing it, *i.e.*, starting from a given point and generating all the parts [of the line] one after the other."² In other words, first we are told that an infinite extensive magnitude is *given* and then that all extensive magnitudes are *constructed* and 'only in this way intuited'.

Here we come upon a new difficulty. The 'constructive' process to which Kant has referred is just that of active movement, real or imagined.³ But movement (and change) he has expressly declared to be wholly empirical. As to movement he has said: "This presupposes the perception of something moving. In space, however, considered by itself, there is nothing that moves. Hence what moves must be something which is found in space only through experience, and is thus an empirical datum."⁴ What then are we to understand by drawing a line in thought and only so generating the intuition of it? And how then could Kant, as he afterwards did, call kinematics, the general science of motion, 'synthetic knowledge *a priori*'?⁵ Already, two years before the publication of his second edition, this difficulty was forced upon his notice by Schütz, an acute disciple of his, who urged that even to draw a line in thought involved movement of some sort; so that, if movement were an empirical datum, mathematical construction would cease to be purely *a priori*. In the second edition, accordingly, Kant proceeded to distinguish between the empirical movement of an *object* in space and the *a priori* movement of describing a space. The object *determines* our observation in the one case: the subject itself acts by synthesising in the other, and in this case we attend only to the action in abstraction from the space.⁶ But then we have only succession, as Kant allows. It seems impossible to attach any meaning to this, unless the succession is not any succession but only the succession involved in movement. The difficulty then remains. Of the two horns of the dilemma

¹ A., p. 25; B., pp. 39 f.

² A., pp. 162 f.; B., p. 203.

³ It cannot be merely a case of his 'productive imagination' which he has described as a blind, though indispensable function of the soul, and one of which we are rarely conscious (A., p. 78; B., p. 103).

⁴ A., p. 41; B., p. 58.

⁵ B., p. 49.

⁶ B., p. 155.

it looks as if Kant were submitting to the first and allowing motion to be *a priori* after all, as at one time he certainly inclined to do. Our perplexity is rather increased than diminished when he incidentally remarks that we can only 'make time presentable under the image of a line'.

In fact, however, the difficulty was really concealed from Kant by his hazy and wavering ideas about imagination. Having started with two distinct 'stems' or 'sources' of knowledge—sense and thought—when in the *Analytic* he came to treat of synthesis, he supposed it necessary to introduce imagination as a third in order to unite them. In the first edition he elaborated the doctrine of a threefold synthesis of imagination; but here, in the second edition, he has retained only the lowest, the so-called 'productive imagination'. This, however, as already said, will obviously not suffice for mathematical construction: that cannot be fully accounted for by a blind and unconscious process, an 'art hidden in the depth of the soul which nature will never surrender to our gaze'. Kant's mathematical construction is 'intellectual synthesis': to say that it is also intuitive—and in this, as already remarked, we see Kant's advance on Leibniz—is to say that it *uses* imagination. But this implies control and is therefore conscious. It also implies abstraction, as he has said, for "many determinations . . . are here entirely ignored,"¹ which the actual objects we observe involve. The accidents and defects of actual representation have to be allowed for. In other words, in mathematical construction we idealise. This distinction had already been fully recognised by Locke, though Kant failed to credit him with it.² Locke's archetypal ideas in mathematics are just Kant's ideal constructions: both alike are conceptual not perceptual. But here again Kant advanced inasmuch as he recognised also the dependence of mathematics on intuition; whereas Locke was so little aware of this as to make a point of placing ethics beside mathematics, as if both were apodeictic in exactly the same way. Locke, in fact, was here nearer to Leibniz than to Kant. But this only brings out Kant's carelessness in talking of drawing a line *in thought*. Euclid's postulates are not *logical* and his problems call for particular figures only to 'provide an image for a concept'. So then, when all is said and done, representation presupposes presentation, imagination presupposes perception—to talk of imagination in any other sense is but psychological

¹ A., 714; B., 742.

² Cf. Locke, *Essay* II., xxxi., § 14; IV., iv., § 6; Prof. Gibson, *Locke's Theory of Knowledge*, 1917, pp. 149, 318.

barbarism. Further, whatever is essential to the actual perception of space must enter also into its schema or conceptual image. It is the merest superficiality to stop short at the general mention of imagination. What precisely is it that we imagine in mathematical construction? We imagine lines *drawn*, circles *described*, co-ordinates *erected*, and so forth, Kant himself has said.

Movement is empirical, no doubt. But there are two sorts of movement, psychologically very distinct, the movements we voluntarily make and the movements of objects which we merely observe. Unfortunately for Kant the psychology of his day entirely overlooked 'the important rôle that bodily movements sustain in every stage of experience';¹ and for his own part, he was content to take psychology as he found it. It was thus owing to 'the intellectualistic bias' of his day that he stopped short at synthesis of a manifold as a subjective factor. And further, he assumed that the manifold is in all cases alike simply given on the one hand and passively received on the other. It is not necessary at this stage to raise any of the vexed questions that ultimately cluster round the meaning of "givenness". It is enough to note that we only call a presentation *given*, when its being there is a fact for which psychology does not account. But in this respect sensations and our own movements are by no means on a par.² In respect of the one we do indeed speak of ourselves as 'almost passive,' as Locke put it; but not so in respect of the other: we then speak of ourselves as active.

It is only by the synthesis of what we receive and what we contribute that we attain to spatial perception. The interest of Kant's theory lies in his recognition of both these factors, that which is given—the sensory manifold³—and that which 'cannot be given'—the subjective activity. Naturally enough he only came upon the former in his Aesthetic dealing with receptivity, and paid no attention to the presence of the latter till, in his *Analytik*, he came to treat of the understanding as essentially informing activity. Here his recourse to imagination—as furnishing the link between the two—brought him in sight of what seems to be the truth. Had he duly pondered the difficulty raised by his own adherent, Schütz—instead of making an ingenious attempt to evade

¹ Cf. *Psychological Principles*, pp. 19 *fin.* and 20.

² *Ibid.*, p. 50.

³ Though even here, as we have previously seen (p. 274), he missed the essential point by taking his so-called manifold as a bare aggregate of items, implying indeed, in spite of himself, though not realising, how much more they actually are.

it—he might have seen that the geometer's ideal constructions must needs presuppose actual overt movements, movements subjectively initiated and not merely presented. In other words, he might have seen, as we have said, that “spatial relations—the ‘ordering’ of the sensory manifold—are relations of a very peculiar sort”.¹ Of such a sort, in fact, that the pure ideational space of mathematics, which alone he had in mind throughout, cannot come first in knowledge as it is *ad nos*. Anyhow, regarding knowledge from this historical standpoint, the continuity between the perceptual and the conceptual in this case of spatial order—as in the others so far considered—seems clear.

We have still to consider temporal order and the relations which it involves, and also, as closely connected both with spatial and temporal order, sundry questions concerning number. These for the present must be deferred.

¹ Cf. above, p. 456.

(*To be continued.*)

VI.—DISCUSSION.

WHAT DOES BERGSON MEAN BY PURE PERCEPTION?

THE number of *MIND* for October, 1918, containing Mr. H. Wildon Carr's note on the above subject, has reached me in Australia after considerable delay. I have to thank Mr. Carr for trying to make some fundamental points clear, and for the considerate way in which he has handled the rather crude view put forward in my note in the number of this Journal for April, 1918. My note reads like an attack on M. Bergson; it was not written with any such purpose, but was put together about five years ago in the course of a correspondence with a friend, and was simply an attempt to clear up a doubtful point. I had not seen Mr. E. D. Fawcett's review of *Matter and Memory* (*MIND*, N.S., No. 82) which would have removed some of my difficulties.

Pure perception, though M. Bergson tells us that it has only a theoretical existence, plays an important part in his exposition of the relation between spirit and matter. It is the point from which his dualism starts (*Matter and Memory*, p. 295). It is in the act of pure perception that spirit can rest on matter and unite with it, yet nevertheless be radically distinct from it (*ibid.*, p. 294). It seemed worth while to isolate pure perception and try to discover what it means for M. Bergson and whether it always means the same thing.

Mr. Carr defines it as the limit of materiality, assuming, apparently, that for M. Bergson this is always the same thing. But it is sufficiently clear that in *Matter and Memory* there are two views of pure perception, an earlier view and a later view. The transition from one to the other is worked out on pp. 69-77. The earlier view is that it is an instantaneous vision, the later view is that it is the act in which spirit or memory meets the vibrations which it contracts into concrete perceptions. In both cases, when we speak of pure perception, the work of memory is supposed in theory to be eliminated. I attempted to press the later view to its furthest possible point by putting the question, "Is pure perception the perception of a single vibration?" The question was unfortunately expressed: it seems to imply an actual experience of the pure perception, and Mr. Carr has no difficulty in showing that there can be no such experience. I never meant to suggest that there was, and regarded it as assumed throughout that the pure perception was something prior to experience and was being considered as a factor in the genesis of experience. It meant nothing more for me

than the act, whatever it is, in which spirit meets and grasps the vibrations which M. Bergson believes it to contract. If at the instant of meeting they are uncontracted and in succession, and if succession is, as M. Bergson holds, something real, we have to face the question whether the theoretical pure perception ought not to be, for M. Bergson, the meeting of spirit with a single vibration. It seemed to me that that view was actually implied by one of the passages which I quoted. Let me say at once that I have misunderstood this passage; I will return to it later; for I do not think that Mr. Carr quite does justice to the misunderstanding which he has pointed out.

Mr. Carr's note does not deal with the further questions to which I alluded, *viz.* : whether memory in the act of perception is to be regarded as meeting vibrations which are already contracted or not, and whether the different aspects of images and pure perception which appears in different parts of *Matter and Memory*, admit of reconciliation or not. I return to these points, because the references to them in my former note do not seem to me now to give quite a fair indication of M. Bergson's attitude.

The first of these questions brings us at once to the relation between M. Bergson and the Realists. Mr. Carr finds the distinction between them in the fact that realist theories make perception diaphanous. The following passage from Prof. Alexander will show, to those who understand his quaint but helpful terminology, how close the approach between the two views sometimes is :—

"We may consider the vibrations or other internal motions of bodies, but there still remains the single pulse of distinctive enjoyment into which those vibrations are 'condensed,' and which appears to our contemplation as colour. Hence it is not without reason that M. Bergson in the course of a highly suggestive passage, speaking from his own point of view, declared that if we could slow down the rhythm in which the colours are presented to our apprehension, the colour though diluted would remain" (*Method of Metaphysics and the Categories*, MIND, N.S., No. 81, p. 18).

The passage referred to is on page 268 of *Matter and Memory*. Just above M. Bergson has said: "Certainly the difference is irreducible (as we have shown in a previous work) between quality on the one hand and pure quantity on the other. But this is just the question: do real movements present merely differences of quantity, or are they not quality itself, vibrating so to speak internally, and beating time for its own existence through an often incalculable number of moments?" In this beautiful passage, as well as in that quoted by Prof. Alexander, M. Bergson seems for a moment to be a Realist. But on the following page he says of the Realist theory: "It wrongly sets up as absolute that division of matter which, in our view, is hardly anything but an outward projection of human needs". Can we allow M. Bergson this "hardly anything"? Surely he ought to make the division one thing or the other. Is our experience only the process of "breaking up for the greater convenience of practical life the continuity of the real"

(*ibid.*, p. 215), and is the continuity undivided, as it sometimes seems to be, or do the contractions which we make correspond to real lines of division? Are there real differences in the rhythms of things, independent of our condensations? Have the contractions, which are supposed to be made by memory, already been partially made, before memory begins its work? On page 239 we are told that "pure intuition, external or internal, is that of an undivided continuity"; and on page 292 it is assumed that "the divisibility of matter is entirely relative to our action thereon". But at the conclusion of the book the writer appears to return to the realist position. Mr. Fawcett, in the review referred to above, complains that with regard to panpsychism M. Bergson's thought oscillates. May we not say that it oscillates with regard to this aspect of Realism? Is it unfair to say that in *Matter and Memory* we have two pictures of the opposing current which spirit or memory meets,—one representing a more rigorous view, which seems to be required by a strict interpretation of M. Bergson's attitude, the other suggesting a more elastic view, which brings him into close approximation with the Realists? In my former note he was interpreted only with reference to the more rigorous view.

Much of the difficulty of *Matter and Memory* arises from the author's use of the word 'image'. On the first page of the introduction we read: "Matter is in our view an aggregate of 'images'". And by 'image' we mean a certain existence which is more than that which the idealist calls a representation and less than that which the realist calls a thing—an existence half-way between the thing and the representation. This conception is simply that of common sense." Now, whatever this means, it is clear that the image dealt with is the image which we get in our conscious perceptive experience. Again on pages 12, 13 we have two systems of images. One is the system "which I term my perception of the universe and which may be entirely altered by a very slight change in a certain privileged image—my body". The other is the system belonging to science, in which we get "the same images, but referred each one to itself—influencing each other no doubt, but in such a way that the effect is always in proportion to the cause; this is what I call the universe". In both these systems the images are still those which we get in our conscious perceptive experience.

It is the same images again which Mr. Carr deals with on the first page of his note, and whose genesis he describes when he tells that they are "a selection within, and a contraction of duration". Duration here is clearly not the duration of spirit which we live through in our conscious states. It is the duration referred to by M. Bergson, when he tells us that "the humblest function of spirit is to bind together the successive moments of the duration of things" (*ibid.*, p. 295). These successive moments are simply the vibrations and movements into which the physicist has resolved matter.

M. Bergson does not at first tell us the genesis of the image. But on page 26, when we begin to "consider how conscious perception may be explained," we pass to a new kind of image, which is thus described:—

"Reduce matter to atoms in motion: these atoms, though denuded of physical qualities, are determined only in relation to an eventual vision and an eventual contact, the one without light and the other without materiality. Condense atoms into centres of force, dissolve them into vortices revolving in a continuous fluid; this fluid, these movements, these centres, can themselves be determined only in relation to an impotent touch, an ineffectual impulsion, a colourless light; they are still images. It is true that an image may be without *being perceived*; it may be present without being represented; and the distance between these two terms, presence and representation, seems just to measure the interval between matter itself and our conscious perception of matter."

From this point onwards we must be prepared to have two matters—one an aggregate of the new kind of images, the vibrations and vortices of the physicist, the other an aggregate of the images of common sense which are constituted by the selection and contraction of these movements. To M. Bergson the difference between the two is one of degree and not of kind, and he feels at liberty to pass from one to the other. To the average reader the difference appears fundamental. Mr. Carr also, on the second page of his note, tells us that a single vibration is an image: but surely he has no right to do so after his account of images on the first page; a single vibration is certainly not a contraction of duration.

The introduction of this new kind of image reminds us of a passage in which the author of the 7th Platonic Epistle speaks of the untrustworthy nature of language as a vehicle for philosophical thought. He tells us "There is no reason why the things which are now called round should not be called straight, and the straight things round. For those who make changes and call things by opposite names nothing is less permanent than a name."

What is actually meant by calling the movements images? They are so called because they can be determined only in relation to an eventual vision and an eventual contact. In other words, if we are to speak of them at all, we must provisionally assign to them relations similar to those which determine our conscious perceptive experience. But surely this applies to every existence whatsoever which we can perceive, infer, or imagine—to everything, in short, of which we can speak at all. The word 'image' thus becomes a meaningless label which may be attached to anything which we can name.

Or is something more meant when the vibrations are called images? Are we to think that already, before they have been selected and contracted, they are something of the same texture as the spirit which meets them? This is what Mr. Fawcett seems to feel when he claims M. Bergson as a panpsychist, and at the

conclusion of his book (*ibid.*, p. 328) the latter writes: "Only one hypothesis remains possible: namely, that concrete movement, capable, like consciousness, of prolonging its past into its present, capable by repeating itself, of engendering sensible qualities, already possesses something akin to consciousness, something akin to sensation". But he has told us definitely that spirit is radically different from the matter which it meets, and if we consider the ground of resemblance which he finds between them in this passage, it seems clear that his attitude has little in common with that of panpsychism.

With this new view of images and of matter it might be expected that we should at once get the transition to a new view of pure perception. But this is not M. Bergson's method. We are told (*ibid.*, p. 34) that we are not called on to trace the origin of perception itself, in so far as it is an image, since we posited it to begin with. Accordingly he retains the common-sense position with regard to images and perception, while he is developing his view of the function of the body in the formation of our experience. Affective sensation is described and distinguished from perception. The meaning of extension is indicated, and there is a preliminary consideration of the position of the materialist. We are told (page 59) that our theory of pure perception must be corrected; but this only means that it must be freed from all impurities which have arisen from affective sensation. We reach the conclusion of this section on page 69, where we are told: "Such is our simplified, schematic theory of external perception. It is the theory of *pure* perception. If we went no further, the part of consciousness in perception would thus be confined to threading on the continuous string of memory an uninterrupted series of instantaneous visions, which would be a part of things rather than of ourselves."

But we do go further, and we do trace the genesis of perception, in spite of the fact that it was posited. "The moment has come," we are told, "to reinstate memory in perception, to correct in this respect the element of exaggeration in our conclusions, and so to determine with more precision the point of contact between consciousness and things, between the body and the spirit" (p. 70). The transition takes place on pages 74-77. The passage should of course be read in full. The essential point in it seems to be, that we are now to abandon the view laid down theoretically, that in our external perception we are joining together by the continuous thread of memory instantaneous visions of the real. There can be no such thing as an instantaneous vision; all visions occupy a certain depth of duration. If we wish to know what the sensible qualities of matter really are, we must disengage them from our particular rhythm of consciousness. They are thus resolved into an enormous multiplicity of vibrations which appear to us all at once, though they are really successive. We must divide ideally this undivided depth of time. Then matter "would tend more and more towards that system of homogeneous vibrations of which

realism tells, although it would never coincide entirely with them". It is not clear why the realist, whom, as we have seen, M. Bergson criticises for making the divisions of matter absolute, should here be charged with making matter homogeneous. The conclusion, which we are told that we shall reach in the last part of the essay, is thus stated: "Subject and object would unite in an extended perception, the subjective side of perception being the contraction effected by memory, and the objective reality of matter fusing with the multitudinous and successive vibrations into which this perception can be internally broken up".

Pure perception is not here defined afresh for as in so many words: but there can be no doubt that it is the point at which subject and object unite—and that, whereas originally it was the meeting of subject and subject in the formation of an instantaneous image, it is now their meeting in the contraction of vibrations. The whole passage is referred to immediately after as "our distinction between pure perception and pure memory" and again on page 83 as "our analysis of pure perception". We are told that pure perception gives us hints as to the nature of matter (*ibid.*, p. 77), that pure perception gives us the whole or at least the essential part of matter (*ibid.*, p. 81), that in pure perception we are actually placed outside ourselves, we touch the reality of the object in an immediate intuition (*ibid.*, p. 84).

The average reader expects that, when this new view of pure perception has been developed, the old one will not reappear. But M. Bergson assumes that whatever he has originally posited with regard to matter, images, and perception is still valid and may be appealed to, in spite of the fact that his magician's wand has turned it into something startlingly different. In all these cases the difference for him seems to be one of degree and not of kind.

Now let us pass to the passage on pages 237, 238 of *Matter and Memory* which was quoted in full in my previous note, and in which Mr. Carr points out a misunderstanding on my part. The last sentence was as follows: "Now if every concrete perception, however short we suppose it to be, is already a *synthesis, made by memory, of an infinity of pure perceptions*, which succeed each other, must we not think that the heterogeneity of sensible qualities is due to their being contracted in our memory and the relative homogeneity of objective changes to the slackness of their natural tension?" The italics are mine, and I failed to see that in the italicised words M. Bergson is going back to his earlier view of concrete perception as an uninterrupted series of instantaneous visions threaded on a continuous string of memory. I assumed that the synthesis, made by memory (Mr. Carr's note omits these three words), of an infinity of pure perceptions does not refer to a mathematical infinity, but is the same thing as the contraction, also made by memory of a large, but not strictly infinite number of vibrations. Mr. Carr thinks that, in identifying these two, I am making M. Bergson propound something essentially silly and convicting him of laxity and

confusion. But if we suppose the two things totally different, we have to face the question—How can one and the same concrete perception be both a synthesis, made by memory, of an infinity of pure perceptions, and a contraction, also made by memory, of many billions of vibrations? Memory is already rather hard worked in M. Bergson's system, but surely here we have got beyond the limit of its powers.

Mr. Carr does not give us an explanation of the passage; but if we have now got the right meaning of the italicised words, does it not follow that M. Bergson himself is bringing the two views together and telling us that if they are not exactly the same, they are extremely like one another? The view that concrete perception was a synthesis of instantaneous visions was only a theoretical view; it could not correspond to the real facts, after it has been proved that there can be no such thing as an instantaneous vision. The real fact is the contraction of vibrations. But M. Bergson seems to feel that the other view, having been posited, may be appealed to, and that it implies a power in memory very similar to the contracting power required in his explanation of heterogeneity. The synthesis is therefore brought back in order to show its relation to the contraction. The train of thought seems to be that, as the heterogeneity becomes more clearly marked, the contraction becomes closer and closer and approaches more and more nearly to the synthesis, but the two never exactly coincide. Perhaps M. Bergson would feel that my question about the single vibration was not altogether a foolish one, and that, though his pure perception must not be regarded as ever coinciding with a single vibration, still, as we dilute the heterogeneity of sensible qualities, the two will be constantly making a closer and closer approach to one another.

Whether this is so or not, it is the new view of pure perception, as the meeting of spirit with the actual vibrations before they have been contracted into heterogeneity, which makes it so important a feature in M. Bergson's dualism. The main point of his book is to show that our experience is the meeting of two reals, spirit in the form of memory and matter resolved into motion. A large part—perhaps the most valuable part—of his essay is devoted to proving that memory, in the form of recollection, is a real existence. This is followed by a criticism of the Zenonian paradoxes which proves the reality of pure motion. Matter, therefore, when completely resolved into motion, must also be a real existence. Pure perception is the act in which these two reals meet; and it must not be considered merely as a limit, or purely from the cognitive point of view. It is a "system of nascent acts which plunges roots deep into the real" (*ibid.*, p. 75).

It is this view of our experience which renders it unnecessary for the Bergsonian system to deal with metaphysical difficulties about the unknown and unknowable. The weak points in the theory are the absence of evidence for the contracting power of memory on which so much of it hinges, and the remoteness of the

new matter from the matter of common sense. M. Bergson considers that he is leaving to matter those sensible qualities of which it is stripped both by the materialist and the spiritualist (*ibid.*, p. 80). But surely common sense will feel that the matter resolved into vibrations, which is all that he leaves to it, has been stripped as bare as it was by the philosophers of either of those schools.

J. HARWARD.

VII.—CRITICAL NOTICE.

The Origin of Consciousness: An Attempt to Conceive the Mind as a Product of Evolution. By C. A. STRONG, Late Professor of Psychology in Columbia University. London: Macmillan & Co. Pp. viii, 330.

THE distinctive excellence of Dr. Strong's work is so well known that it would be out of place for us here to do anything more than extend a hearty welcome to this book. Its object is not to give an account of the origin of consciousness, but rather to prepare the ground by asking the preliminary question, How to conceive the mind so that its evolutionary origin shall be possible. And it is well that such a question should be strenuously tackled. Dr. Strong shirks no difficulties, burks at no facts; his candour and intellectual honesty are such as he has always led us to expect from him. An evolutionary origin of the mind, he thinks, does not involve its reduction to mere matter; but it does involve its reduction to feelings or sensations. And following the lead of William James, to whose memory the book is dedicated, he endeavours to show how this is possible. There are three difficulties in the way: *viz.*, that of the transcendence involved in knowing, of the unity of the self, and of the plurality and diversity of mental elements which such a reduction appears to leave on our hands. It is with these difficulties that the book is concerned.

It may be suggested at once that Dr. Strong's view of the mind is not the only view which renders the mind capable of fitting in with the evolutionary view, and that the doctrine of pan-psychism which results does not necessarily involve his premisses. A useful contrast might be made between Dr. Strong's pan-psychism influenced by James's psychology, and Dr. Stout's pan-psychism, influenced by Ward's psychology, which is no less evolutionary. We should like to have made this contrast in detail; for in many points in which Dr. Strong's conclusions are in agreement with those of Dr. Stout, our criticisms of Dr. Strong's arguments would not apply to Dr. Stout's.

The book is a sequel to *Why the Mind Has a Body*, published in 1903. Dr. Strong's pan-psychism has changed since then, and the changes in his views are here explained and defended. An epistemological basis is provided for pan-psychism by an account of sense perception on the one hand and introspection on the other,

which rests on what he describes as the vehicular theory of knowledge. That vehicular theory contains four main points, which cannot be summarised better than in Dr. Strong's own words:—

“REQUIREMENTS OF LOGIC.

“(1) The object must be kept free from admixture with the psychic state or with givenness.

“(2) It must be directly known.

“REQUIREMENTS OF PSYCHOLOGY.

“(3) There must be a psychic state or psyche concerned in knowing.

“(4) The knowing must be vehicular” (188-189).

(1) seems to conflict with (3), (2) seems to conflict with (4); and all the erroneous views in philosophy are by Dr. Strong related to an over-emphasis of one or other of these four requirements, resulting in non-fulfilment of the rest. His own theory endeavours to hold the balance between them.

There are then two main points in Dr. Strong's account of knowledge (and we devote attention to it because it is the basis of his whole view, and occupies three-quarters of his book): *viz.*, his account of givenness, and his account of sensation and introspection.

(i) Givenness is the term Dr. Strong uses to denote an aspect of the fact of awareness. When we are aware of an object something is given; and “as the fact that things are given is the least disputable of all the aspects of consciousness” (30), it is clearly desirable to use a term referring to this aspect in a study of consciousness. Givenness, it must be noted, is not equivalent to sense-perception. When I perceive an existing object, the existence of the object is not given. What is given is an essence. “Positively, an essence may be defined as anything whatever that we can think of or know, considered solely in regard to *what* it is, and not as existing; or, more briefly, as the entire *what* of a thing, without its existence” (38). Essence, in other words, is a “being of the logical type, and not an existent either physical or psychological”. It is only by thus separating the being of an object from the “essence,” which is all that can be given, that error is possible. Sense-perception is givenness of an essence plus “an implicit assumption, *shown by the way we act* (italics mine) that the given essence does in fact reveal an existing object” (39). This is put very clearly (40-41): “In perception the essence and the existence of the object divide, and the former alone is apprehended by consciousness, while the latter is asserted or assumed”.

In expounding this view, Dr. Strong does not seem always to take sufficient care with his terminology. His first mention of “givenness” (30) identifies it with awareness. Consciousness is next (33) identified with awareness. We are then told (35) that

by "object" is to be meant "the real thing, existing in . . . space and . . . time". By essence is to be meant "anything that can be given, whether to sense-perception or to thought, considered not as given but simply in itself" (36). The thesis is put forward that "what is given in sense-perception is not the object as an existence, but only the object as an essence" (*ib.*). It is (37) an error to suppose that "what is given in sense-perception is the object itself, the very external thing". An essence is (39) a logical entity merely. So far, all is consistent. But the step taken on page 40 introduces some real confusion. He speaks of the essence that is given as *e.g.*, the essence "a cold object" or "a bell". And this encourages him to say (41) that it is "possible for an object to be given in a form more or less different from that in which it exists". "Object" here should clearly be "essence". But if "essence" were used throughout, and if it were clearly realised that only essences are given—that we are aware of, conscious of,—only essences, and that our belief in the existence of the essence as an "object" is a matter of instinct, which cannot be rationally justified (221), then the whole of the argument on page 45 would be impossible. It would be impossible for Dr. Strong to accept the propositions (1) "that existence is known only in experience," (2) that "from objects of experience other objects of experience can be inferred, but not existences that could not be experienced at all," and hence (3) that "if physical things and public space are not data, they cannot be inferred existences but only valid ideas about sensibles," and to describe this result as administering a blow to "common, I had almost said to good, sense" (45), without seeing that this argument, which he uses against the constructionists, is double-edged, and that its other edge cuts at his own view. For on his own view "things and public space" are emphatically not data; it is only essences which are data. It would be impossible for Dr. Strong to say as he does, that "a coloured and hard thing" is "experienced". For the sake of clearness he should say that a logical entity is "given," an existing object instinctively believed in; he should say this, and continue to say this, and refuse to speak of our knowing, cognising, perceiving, being aware of, an object, or of an object as being known, cognised, perceived, given, at all. Confusion is even worse when in his further criticism of the constructionist view, he argues that "the fact that . . . physical things are regarded by all men as real . . . shows that they, and not sensibles, are the true data of experience" (48); and when he further adopts this mode of speaking as the proper one for his view, excusing it by saying that "the object is given only as an essence; we are not conscious of its existence". For if the object is given only as an essence, only an essence and not the object is given, even if the object when known truly, would be identical with the essence. Dr. Strong's attempted compromise, of saying that what is given is not an existing object, but only a logical entity, and yet on the other hand is an object, and not a mere set of sensibles which have to be

correlated into an object, is unstable. If the constructionist gives us an atomism, it is at least an atomism of existents; and while Dr. Strong gives us a unity, it is only the unity of an essence. The object, *i.e.*, the existing essence, is and must remain, for Dr. Strong, assumed. "Given essence and actually existing object are," as he himself insists (51), "mutually independent". Dr Strong asks (48) as to the difference between an object that is given and also exists, and an object which is merely given. Surely "object" should have been "essence". He answers, that the intrinsic difference is that "the real object acts—that is, it is a source of changes in itself and other things. To recognise anything as existing is to recognise the presence of a source of change" (49). But how can you "recognise" anything as existing? An essence is given; you assume an object; you do not recognise it in the ordinary sense of the word. You act on the expectation that other essences will be given you: and so they are; but how can you ever translate—on Dr. Strong's premisses—the explanation of that successful action into a "recognition" of the "presence of a source of change"? Dr. Strong has really no right, on his theory, to speak of recognising, experiencing, knowing, the existence of an object. He can speak of "acting"; acting on instinct; but not acting on the assumption or belief that an object exists. If the existence of an object cannot be given, then it cannot be perceived or known or recognised in the ordinary sense of these words; and it cannot be assumed or believed either.

The theory as worked out is open to the same objections. The problem of Chapter III. is: "How can a sensation or mental image convey an essence?" (112). The answer consists in (a) an account of the nature of thought, and (b) a definition of givenness.

(a) Thought is re-presentation, re-givenness. It is direct knowing which is "the mere copy or duplicate of some previous direct knowing in actual experience" (113). "We understand by using the mental images, or, more exactly, the essences, which previous experience has left behind. Intellection completes the given object by imagining its context—*i.e.*, the objects connected with it, and the relations that connect. It is thus (so far as a matter of consciousness) *simply a more complicated givenness*" (117-118). It is "a mere superstructure erected upon cognition," "a mere imagining of what we have perceived before" (119). Its value, of course, is largely that it is "the more or less ingenious and probable imagining of what cannot yet be experienced" (117). But this imagining is essentially an imagining of what has been perceived before. This view of thought is necessary, he thinks, if the mind is to be conceived as a product of evolution.

It follows that what is given is fundamental, and is given without interpretation; interpretation being based on it and not adding anything new: being in short mere anticipation (in more complex form) of what was once given.

(b) What then is givenness? If we take Dr. Strong's words literally, givenness of an object as an essence is simply an aspect of

the reaction of the organism as if the object were present, whether the object be present or not, *provided this reaction is due to a sensation which bears in its own nature the impress of the object* (122).

Thus two things seem to be necessary to constitute givenness: (1) the reaction of the organism, (2) the presence of a sensation of a certain type causing the reaction. Thus he says (134), "a cognitive state is, in itself considered, a non-cognitive feeling". And also, "cognition consists in the . . . function by which sensations prepare us for and direct action." He speaks consequently of the sensation as "becoming the index of the object," and as thus acquiring "meaning or intent" (122); as being "used as a symbol" (123). But it is only in so far as the "non-cognitive feeling" prepares us for and directs reaction to an object that it becomes cognitive—that the essence "the object" is given.

Certain points must be noted. If givenness is essentially an aspect of the reaction of the organism toward an object as if the object were there (122), and if to react as if an object were present is implicitly to affirm the existence of the object (39-40), must it not follow that givenness is essentially bound up with affirmation of the existence of the object? And if so, on what grounds can it be said that affirmation of existence is an element of perception entirely distinct from givenness? (40). If page 41 be read carefully, the importance of this point will be seen; for it is just because only an essence is given, while existence has to be affirmed, that cognition may be false as well as true. But if there is not givenness apart from reaction, *i.e.*, from affirmation, then we can never do anything but affirm. We might decide that we had reacted wrongly, or to a wrong object; but we should never have grounds for supposing that our reaction was to an unreal object. For a non-cognitive feeling can become the vehicle by which an essence is given, only so far as it prepares us for, and directs reaction to, an object.

This criticism can be reinforced by another. We are told on pages 77-78, "how the relation of givenness comes to consciousness" (see 135). And the account is quite simple. The steps "are also the steps by which the ordinary man rapidly and intuitively arrives at his knowledge of consciousness. He finds that he has been (perceptually) wrong, that something appeared which was not real; and from this he at once deduces (1) that there is such a thing as an appearance,—*i.e.*, an essence, and (2) that there is such a function or relation as appearing—*i.e.*, givenness. Nor is there any reasonable ground on which these deductions can be impugned" (77-78). But there seem in fact to be two grounds on which these deductions can be impugned, on Dr. Strong's own views: (*a*) that to be conscious is essentially bound up with reacting as if an object were present (122, 134)—which affords no ground whatever for ever supposing the contrary; and (*b*) that to deduce, infer, is simply to perceive again what has been already perceived (113, 119)—and

hence the ordinary man could never infer an essence, or such a function as givenness, if he had not perceived these things already. And by the very account of givenness, he cannot perceive—*i.e.*, react towards—anything but an object.¹

The difficulty is covered up by Dr. Strong's persistently speaking of consciousness, meaning, intending, to describe what he means as givenness. A rather interesting instance of the point is to be found on page 137, in his comparison of his view of cognition with James's view of emotion. "Just as James could (by an excusable hyperbole) say, 'We are angry because we clench our fists,' 'We are ashamed because we blush,' the advocate of the vehicular theory can say, 'We cognise because we attend and react'." The question is, whether he means this literally, or whether it is only "by an excusable hyperbole" that he can say it; and while the first few sentences on page 137 suggest that the hyperbole is present, the example of the cat at the foot of the page suggests that the statement is literal.

What difference is made to the reaction from the presence of sensations? And why must the sensations bear in their own nature the impress of the object? Let us take the second point first. I think that all that can be meant is that the sensations are directly caused by the object; for they can be hallucinatory (*i.e.*, in no way resemble the object) and yet help us greatly in our dealings with the object (66). Thus the only important question is the first: What difference is made to the reaction from the presence of sensations?

Certain points may be noted at once. The reaction can be very varied. It can be made when the object is in fact not present. We may bring out the significance of this by trying to use the same language in the case of an ordinary physical change. Can we speak of a material body as reacting? When a metal is heated it expands. Let us describe expansion as its way of reacting to fire, or any other form of heat. Now let us suppose further, that it could expand under its own internal molecular changes, and suppose that these internal changes are due to conditions brought about by its previous expansions and contractions caused by heat. Those who have used lamps in these troublous times will no doubt have realised an analogous situation. When the cold lamp globe,

¹ We would suggest an alternative account of error which seems to be more in harmony with Dr. Strong's account of givenness as an aspect of reaction. The ordinary man would, on this account of the matter, find that he has reacted toward the wrong object; and introspection would enable him to react toward the right object—*viz.*, his own mental state. This would next enable him to react towards the relation of externality between his own mental state and the other object which he originally reacted to wrongly. In this way "givenness" would come to consciousness. In this way introspection would be needed if the ordinary man was to be able to account for his having fallen into error. And the way would be opened for regarding introspection as a product of evolution, and not merely a by-product, as Dr. Strong inclines to think (202).

in the middle of the day, cracks with no apparent cause, can we say that it is reacting to a hot (or cold) object in the absence of the object? Such a description would, I think, be altogether illegitimate. Let us come now to the case where sensation is present. Does the presence of the sensation justify the description "reaction to an object *as if* the object were present (whether in fact it is so or not)"?

If this description is to be justified, it must be for the sole reason that sensation does enable the organism to refer to an object, to mean or intend, or symbolise an object. But if this intending, this symbolising or meaning, is to be spoken of in terms of reacting, then the word reacting must contain meaning or intending as an essential part of its significance. And in this case, while purely material bodies can be connected in causal series, only psychic bodies can be said to react. All reacting will involve a meaning or intending of the object reacted to on the part of the agent. And this is perhaps Dr. Strong's view. But if so, the whole account should be altered in order to make this clear. For the word reaction would not mean what is ordinarily understood by the word; it would mean indeed what is ordinarily understood by "consciousness". So far from consciousness being explained in terms of reaction, the reverse would be the case. And then, when Dr. Strong asks, as he does perpetually, What better guarantee of the belief in the existence of an object can you have than the fact of your acting as if it were there? his question would really amount to asking, What better guarantee of the belief in the existence of an object can you have than the fact of your meaning or intending it? But this would give an entirely different colour to his theory.

(ii) We have found equal difficulties with Dr. Strong's account of the psychic state, which is the basis of his vehicular view of knowing. This is to be found in Chapter II. The bulk of the chapter is devoted to proving that there *are* sensations. The general position held is that "both in internal sense-perception and in external sense-perception there are sensations concerned which must be distinguished from the essences, and which are in fact the vehicles for these two kinds of cognition" (92-93). These sensations are psychic states. Again (91) "What is given . . . when psychic states are given, is not mere qualities, but existences, of a sort different from physical objects. I do not mean that the existences are given as such, but that essences are given which exhibit existences."

Look closely at the argument on page 93. It consists in taking cases of toothache, which is referred to a tooth, and as so referred brings before us "an essence which dimly exhibits the irritative process"; of the touch of ice, which "permits me to cognise the low temperature of the object"; and so on. No one will question, he says, that the ache, the touch of ice, is a state of our sensibility. "The sensations are in none of these cases our object—the datum is everywhere a purely physical property or state: but the sensation

is none the less existent as the vehicle of the datum, the means of the givenness of the essence. It is perfectly obvious that in all sense-perception a state of our sensibility is used as the means of apprehending the object. . . . The existence of the sensation is as sure as the fact of the specific perception." Dr. Strong is endeavouring to show that the toothache, the coldness, exists. But no one disputes that. What the realist insists is that they are a part of what is experienced. He will say that I experience the pain in the tooth, the coldness in my finger, as directly as I experience the low temperature of the ice, the irritative process in the tooth. It is not enough for Dr. Strong to point to their existence; he must show that they are experienced in a way differently from the way the physical objects are experienced; that, in other words they are *not* experienced, but only vehicles. His argument is that they are so obvious that no one can dispute their presence. But if they are so obvious as all that, is not the realist likely to be right in regarding them as objects apprehended, and not mere vehicles of apprehension?

The suspicion that there is a lack of clearness in Dr. Strong's mind on this matter seems borne out by his confirmatory argument in regard to after images (94 ff.) The case of vision, he says, seems to prove the realist right. In vision there seem to be no sensations, but only visible objects. But, he argues, visual after images prove that there are sensations even in the case of vision. I summarise his argument briefly, italicising for my own purposes. Look at the sun. Then turn the eyes to a bare wall. There is seen *on the wall* something—a visual after image. Note Dr. Strong's statements. The after image is *the thing on the wall*. This thing on the wall is recognised as not physical; it is not necessarily, or even usually, taken to be a hallucination. "We are too aware that it is a purely subjective phenomenon. What strikes the mind . . . and draws all our attention to itself, *is the unquestionable subjective existence that floats before our eyes . . .*" (94). It is the essence "a certain psychic state" (95). Now I do not see any possible opening for misinterpretation here. What Dr. Strong must be talking about is the thing on the wall. That, and nothing else, so far, is the essence "a certain psychic state". And it is psychic because it cannot be physical. But next, he confirms its psychical nature by going into detail (95). Actual observation, he says, reveals in the psychic state in question "characters which distinguish it clearly from the physical essence". What physical essence? we ask. It now turns out that the thing seen on the wall is a physical essence, which as such, is unreal; and the psychic state is the vehicle, whose relation to the physical essence is the same as that of any vehicle to a given essence. For he argues, that if the after image be first projected upon the thumb nail, then on a wall, etc., the object given will vary in size in the different cases; *i.e.*, in each case the physical essence will be different" (96). But, he continues, "at any moment, by properly directing the

attention, we can become aware that the after image itself has in all cases the same size"—that it only "brings before the mind a bigger object" in one case than in another.

Here is a new fact introduced. What was originally called the after image now turns out to be "an unreal object," brought before our mind by the real after image; and although originally the unreal object was declared to be psychical because of its non-physical nature, now the real after image is declared to be psychic because of its differences from the unreal object. It turns out that it is not what we saw, but that by means of which we were enabled to see that which we saw (the after image *qua* sensation, and not the after image *qua* object) that is psychic.

We are not yet finished, however. Examine arguments (2) and (3) on page 97. It turns out after all that it is that which we see, *the thing on the wall*, which is psychic. For as we move our eyes, the after image—the thing on the wall—moves too. We are aware of a movement, which is *real, experienced* as actually occurring (italics Dr. Strong's). But there is no illusion that it is physical. "Between what category of things then does it take place"? he asks. "The only possible answer is that it takes place between sensibles—that it is a change in the arrangement in the sensations by means of which we perceive objects" (97). These words ("it takes place between sensibles, etc.") have to be interpreted by means of page 318; but it is obvious from them that the after image, the thing moving on the wall, must be psychic.

Let us finally summarise. It is argued (*a*) that the after image—the object I see—is subjective because it is definitely known not to be physical, and because it is definitely experienced to be real (94, 97, argts. 2 and 3); and (*b*) that the after image—that by means of which I see what I see is subjective because introspection shows that it has a character different from the character of the object I see (95-96): (*a*) identifies the after image with what I see, and makes it the psychic fact; (*b*) distinguishes between what I see and the psychic fact by means of which I see what I see. To say nothing of the fact that according to (*a*) the psychic state is the existence pointed to by the essence, while according to (*b*) the psychic state is the vehicle by means of which the essence in question is cognised.

But this is not yet all. If we turn to page 105 we find that a psychic state can only be known by introspection; and that the only psychic states we can introspect are those of a moment ago. Further (106) the state of a moment ago is cognised by means of a state—perhaps a memory image, says Dr. Strong—existing now.

Apply this to the patch on the wall. I cannot see how any of the arguments used in connexion with it are compatible with the account given of introspection. If anything connected with after images is psychic, it is not because it is introspected. What in fact all Dr. Strong's arguments rely upon is the analysed difference

between some characters of what we see, and other characters of what we see. In fact after images are precisely like ordinarily seen objects in this respect. I look at a tree, and judge it to be two feet in diameter. I look at it again, and judge its appearance to be as extensive as the appearance of the gate-post between me and the tree. I am sure that I do not extrospect in the one case and introspect in the other.¹ I am sure that the judged size and the apparent size are both outside. Thus it is not any immediate character of the quality experienced which makes us call the one physical, the other psychical. So far I think we must go with the realists. But the question arises whether we must go any further. All the appearances are so far on a level. None of them have a label attached. But thereupon arises the problem of discovering their nature by other methods. The question becomes one of ordering the various facts in as simple a way as possible. The realist tries the way of widening his conception of what is physical. His opponent distinguishes between the physical and the psychical. However the matter is decided, it cannot be by introspection.

We have no space for an account of the remaining portions of Dr. Strong's book. If we have not referred to his very stimulating and thought-provoking discussions of the unity of the mind and of the nature of the ultimate psychic elements composing the mind, it is due to the inevitable limitations of space imposed on a reviewer. To do justice to them would require a separate article.

The book is so well arranged that the lack of an index is perhaps not so greatly felt as it would be in most books; but we cannot help thinking that an index would have been useful in enabling the reader to group together the various aspects of the different questions. In matters of philosophy, there should be no exception to the rule that every book needs an index, as perfect as it can be made; and philosophical writers should be the very persons to set an example of what an index could be. Messrs. Macmillan are to be congratulated on maintaining a pre-war standard of excellence in production.

LEONARD J. RUSSELL.

¹ "Physical size is the size given to us when we are in the attitude of sense-perceiving, or cognising an external thing, while sensible size is the size revealed to introspection, and belonging to the after image as compared with other existences of the same category" (96). I feel sure that this is wrong.

VIII.—NEW BOOKS.

Philosophy and the Social Problem. By WILL DURANT, Ph.D., Instructor in Philosophy, Extension Teaching, Columbia University. New York: The Macmillan Co., 1917. Pp. x, 272.

THE importance of this vigorously, brightly, and simply written sketch, by a member of the Columbia University Staff, lies in the fact that it is probably the first literary document that definitely exhibits pragmatism getting to work upon practical problems and applying itself to politics. For it must be admitted that despite its practical aim its output hitherto has been as purely theoretic as the theories it criticised, though it could doubtless plead necessity and other good reasons for this procedure. As a document with a practical intent, however, Dr. Durant's book contrasts very favourably with the vague verbiage and pusillanimous aloofness which has figured as 'political philosophy' in the academic tradition; so much so that it would seem to justify a prediction that when pragmatism descends from the study into the street in full force, it will assuredly be true to itself, and will emphatically 'make a difference'.

It is interesting, therefore, to follow Dr. Durant's plan for doing so. He begins, with admirable clearness and directness, by telling his readers what he is driving at, and so enables them to judge at every step whether he is approaching his objective or straying from the road and getting lost in the philosophic fog. So he declares that the purpose of this essay is to show: first, that the social problem has been the basic concern of many of the greater philosophers; second, that an approach to the social problem through philosophy is the first condition of even a moderately successful treatment of this problem; and third, that an approach to philosophy through the social problem is indispensable to the revitalisation of philosophy. He next, *mirabile dictu!* defines his terms. By 'philosophy' he means "a study of experience as a whole, or of a portion of experience in relation to the whole"; by 'the social problem' "the problem of reducing human misery by modifying social institutions. It is a problem that, ever reshaping itself, eludes sharper definition; for misery is related to desire, and desire is personal and in perpetual flux" (p. 1). Or more succinctly his problem is "the mutual elucidation of the social problem and philosophy" (p. 3). His method is to select, as representative philosophers who have really cared for the social problem, Socrates with his "plea for intelligence," Plato with his vision of the philosopher-king, Bacon with his "dream of knowledge organised and ruling the world," Spinoza with his "gentle insistence on democracy as the avenue of development," and Nietzsche with his "passionate defence of aristocracy and power" (p. 269). The entire appropriateness of this selection, and of the interpretation of the selected which it implies, may be questioned, and in particular the choice of Spinoza as the philosopher of democracy, instead of Protagoras or William James, may seem bizarre; but Dr. Durant contrives to discourse agreeably and competently about them all.

This bird's-eye view of philosophic history, however, is only intended to lead up to a most audacious proposal, which is nothing less than a revival of the Platonic programme for the Rule of Reason, and opens out a most terrific prospect to the prudence of every professor who values his job or even his life. For holding that "intelligence is organised experience," and that philosophy is needed "to point the nose of science to a goal" (p. 224), Dr. Durant infers that "intelligence itself must be organised" (p. 227). So let the professors, who at present "suffer from intellectualism, academitis, overfondness for theories and other occupational diseases" (p. 229), get together and organise themselves into a *Society for Social Research* and discover and publish *the real facts* about the subjects of political dispute, coldly, impartially, unrhethorically, but all the more convincingly. Let them form, moreover, a Committee on Literary Awards, and put on it the authorities that would guide the public taste. Thus would the people be enabled, for the first time in history, to get at "the truth, pure, unimicked, unalloyed, about all matters of human interest; and truth would rule, not by repressing ignorance and folly, but by dispelling it. And with truth would rule philosophy, and the Philosopher-king would merely mean that 'the liberator is made king'" (p. 254).

Truly a nobly Utopian vision, nobler perhaps than Plato's! But, it is to be feared, as vain a dream. For much as in Plato's scheme the first two steps to the realisation of the Kallipolis contained impossibilities, *viz.*, the son of a king willing to become a true philosopher, and the adult population willing to be exiled in order that its children might be remoulded by the true education, so in Dr. Durant's the very first step would probably import the seeds of a fatal corruption. It postulates (p. 230) "an inspired millionaire to finance the movement" for discovering the whole truth and nothing but the truth: but would a Society so originated, and administered, presumably, by Trustees of the highest repute and considerable antiquity, be capable of publishing truths that were unpalatable to millionaires? One is reminded of the fate of Sir William Osler's joke that, so far as advancing knowledge was concerned, the proper place for men over 60 was the lethal chamber; it was gravely confuted by the complete consensus of the great authorities interviewed by the newspapers, which noticed as little as the public that they had all attained their three score years and ten!

But even supposing that the Society for Social Research could get itself started, what would be its fate? It is quite true that truth is a great power, and that for this reason all lies mimic it; also that "there is nothing so radical, so revolutionary, as just to tell the truth" (p. 263). Also that if the Journal of the Society for Social Research had a circulation of a million voters, millions would be given to control it (p. 260), and that, as Dr. Durant himself sees (p. 252), "as soon as your society exercised real power on public opinion it would be bought up, in a gentle, sleight o' hand way, by some economic group . . . and justice would have another force to contend with". If, however, contrary to all reasonable expectation, by some divine chance it escaped the danger of secret corruption, it would be suppressed by force of law. For it would inevitably fall foul of the actual rulers of the world, who have always and everywhere held that whatever can be made to work is 'true,' or true enough for their dupes. Consequently the Society would everywhere encounter a far more powerful organisation, armed with all the powers of the State. A Ministry of 'Propaganda'—for the dissemination among the people of 'truths' which it was *convenient* for the rulers that they should believe—would combine with a 'Thrasymachean' (or rather 'Kleitophontic') Ministry of 'Justice'—for the enforcement of what the

rulers believed to be to their interest—and together they would control the Department of Education, with consequences which may easily be imagined by students of 'patriotic' text-books of history everywhere. Hence the Society for Social Research would probably become a new instrument of government. Or else it would have to court martyrdom. Now, abstractly, that might be quite a good thing. Philosophy has paid no blood tribute to the State since Socrates, and to produce a second Socrates would no doubt raise its repute. But one would feel more sanguine about the organisation of truth-telling by American professors, if they had previously succeeded in emancipating themselves from their Boards of Trustees by organising themselves into a trades union. Still Dr. Durant's idea, into whatever hands it falls, appears to have a future; and his book certainly makes a stimulating introduction to philosophy.

F. C. S. SCHILLER.

The Present Conflict of Ideals. A study of the philosophical background of the world war. By RALPH BARTON PERRY, Professor of Philosophy in Harvard University. Longmans, Green & Co.

If, as many believe, the world war may justly be regarded as the result of the tendencies of contemporary philosophy among the various great nations taking part in it, this book should take a high place among the attempts to interpret the deeper causes of the war. It is not to be classed among the ephemeral pamphlets, written either to condemn or to justify the conduct of Germany in the light of German philosophy, and reflecting merely the animus of the partizan or propagandist. It is indeed limited in its scope. For Professor Perry does not claim to possess sufficient acquaintance with the mentality and literature of Russia, Italy and Japan to include them in his survey. But with regard to Germany, France, England and America he succeeds, as far perhaps as a contemporary and a belligerent could reasonably be expected to do so, in presenting the case temperately and objectively, while frankly admitting the side on which his sympathies lie. There will be some, however, who will disagree with the underlying assumption of the book, and will hold that what has happened has been in spite of rather than because of the various philosophical ideals. It is indeed inevitable that all parties to such a conflict should be carried along by it further than they had originally any intention of going. And so although their conduct is in part the result of their principles, it would probably be truer to say, that fresh theories and ideals have been accepted or professed in the course of events. And if the belligerents had fared differently, it is quite likely that the same principles might have been alleged to justify a different policy.

Even if such a general criticism be admitted, the book is still valuable for its analysis and classification of many of the chief tendencies of contemporary thought. Professor Perry stands out as one of the chief representatives of the new American Realism. That is the standpoint from which the book is written, although it is not obtruded on every page. And from this book it is fair to estimate to some extent the merits and defects of the new school. The position of the new Realism is expounded in chapter xxv. In asserting the "independence of the fact" it "desires to justify and to transpose to philosophy, the attitude of science". That doctrine is fundamental to all Realism. Professor Perry proceeds to discuss Platonic Realism and the "externality of relations". He then explains that the differentia of the American Realism is to be found in its doctrine of the "Immanence of Consciousness". Consciousness, according to the new school, is "homogeneous and interactive with its environment," not either (1) "coextensive with the totality of things," or (2) "a

peculiar substance, absolutely distinct, for example, from corporeal substance, and incapable of entering into any commerce with it". Apart from this special doctrine of the Theory of Knowledge the New Realists are in other respects in agreement with Pluralists in general.

When one attempts to estimate the strength and weakness of the new school from Professor Perry's studies in contemporary thought, it must certainly stand to his credit that he makes a genuine attempt to state fairly what are the actual tenets of those whom he is criticising. He approaches other thinkers with a real desire to know what they mean, and without any *arrière pensée* of discrediting them in advance, before they have had an opportunity of stating their views. He does not covertly attribute to them his own presuppositions for the sake of undermining their standpoint. If he ever misrepresents them, it is because of his excessive fondness for hard and fast lines of classification, which sometimes fails to do justice to the richness and variety of the subject matter, but never from any wilful intolerance or personal bias. This is a very considerable merit.

On the other hand, it may seem to those who are not convinced by New Realist arguments, that the possibilities of fruitful development in philosophy on these lines are distinctly limited. If externality is an ultimate category, as apparently we are intended according to this school to suppose, all reality tends to be reduced to one level. We can only represent the world on a kind of Mercator's projection. Distortion somewhere is inevitable. The effect of this tendency to externalise everything is particularly unfortunate in the case of value, which is thus distorted into a kind of fact. Logic by such a method is unduly assimilated to mathematics. And it becomes quite impossible to do justice to the phenomena of consciousness. We are required to interpret the whole of experience from our inspection of it in a single cross-section. The cross-section or Mercator's projection may be worth examining and repay study for certain purposes of analysis; but to interpret experience as a whole, we require to plunge into it at different levels. And this we are not permitted to do. We begin our study of the processes of thought too late, and yet we are not permitted to follow them out to their furthest conclusions. And so we are precluded alike from entering into the living development of thought or reaching the centre of reality. Any effective criticism of categories, any true dialectic is out of the question. And this equally for the purpose of constructing one's own position or for demolishing that of one's opponent. Hence there is a certain lack of definiteness and conclusiveness in the book. We are invited to consider a number of tendencies in contemporary thought. But it is hard to specify any definite conclusion towards which they lead. The title of the book refers to a conflict of ideals. But somehow, although many different kinds of ideal or lack of ideal are specified, we are not made to feel, with any keenness, that the conflict between them is acute. They are passed in review one at a time, each in turn, and then they are left. It must not be imagined that Professor Perry's appreciation is not frequently just, or that his criticism is not often to the point. He breaks new ground most perhaps in the chapter entitled "The Gospel of Action and Movement". But he does not always seem to realise the full force of the tendencies he is interpreting. Indeed, it may be doubted whether he has entered fully enough into the movements of the time to feel them profoundly, or is sufficiently detached from them to discuss them vigorously.

He sees well enough the main currents of thought within contemporary civilisation. But when he is faced with the more radical criticism, which calls in question the principles on which that civilisation is based, he

does not always know what to make of it. For instance, he discusses Nietzsche after Darwinism. But surely, while all would admit the many-sidedness of that writer, which makes it difficult to decide how to classify him, it is nevertheless better to group him, as Höfding does, under the Philosophy of Value than as a post-Darwinian. The value theory of Nietzsche is certainly more important than his Evolutionism, although of course he has affinities in both directions. But, as has been observed, Professor Perry's treatment of value is not adequate. In this connection too he does not make what might have been a good point. Among English thinkers Edward Carpenter stands out as a radical critic of modern civilisation, far less brilliant than Nietzsche, but also without his vitriolic insanity. Professor Perry might have instituted a comparison between them and argued from it, that British revolutionary tendencies before the war were more wholesome than those of Germany. Yet Carpenter's name does not occur in the book, at any rate not in the index.

There are some misprints—page 153, foot-note, *inciting for In citing* : page 175, *tenaciously for tenaciously* : page 180, *Kelleter*, apparently for *Ketteler*. Also there is a slip of the pen on page 494, "British thinkers such as Froude, Mommsen and even Carlyle".

C. T. HARLEY WALKER.

*The Philosophy of Mr. B*tr* and R*ss*ll.* Edited by P. E. B. JOURDAIN.
George Allen & Unwin. Pp. 96.

In this valuable work Mr. Jourdain has collected the writings of the late Mr. B*tr* and R*ss*ll and published them with the addition of some further fragments found in that philosopher's interleaved copy of the *Prayer-Book of the Free Man's Worship*. The main body of the manuscript was rescued with difficulty (we are told in the preface) from the flames of Mr. R*ss*ll's house, which was set fire to by a number of enthusiastic upholders of the sacredness of personal property, on that fatal day in July, 1911, when the philosopher himself 'got into touch with reality' and was torn to pieces by Anti-Suffragists. Mr. Jourdain, with his usual passion for historical accuracy, has enriched the text with continual references to the works of other authors in the same field, such as Frege, Schröder, Russell, and John Henry Blunt (whose *Annotated Book of Common Prayer* is by the bedside of every symbolic logician.) He has also added a valuable appendix in which the logical views of Mr. R*ss*ll are compared point by point with those of the characters in Lewis Carroll's works.

I do not propose to enter in detail into Mr. R*ss*ll's views, which the reader can study for himself in Mr. Jourdain's book. Many of them have been made familiar to us since he wrote by Mr. Russell (whose life and writings present many curious parallels to those of his deceased friend). Perhaps the most important novelty of Mr. R*ss*ll's in logic is his proof that jokes form a hierarchy in the sense of the Theory of Types. He suggests the possibility of jokes of a transfinite order 'which excite the inaudible laughter of the gods'. Let us hope that they are all 'well ordered'.

There are just three points that need some discussion: (i) the case of the 'philosopher M.' who doubted that false propositions imply all propositions; (ii) the question whether Humpty-Dumpty was an Hegelian; and (iii) the question: Is the Mind in the Head? On the first and third of these matters I have some additional information to offer.

(i) Unless my memory altogether deceives me I was present in the rooms of the 'philosopher M.' when he expressed his celebrated doubt as to whether the proposition $2 \times 2 = 5$ implies M. is Pope of Rome. The

mathematician H. was present, and, on the spur of the moment, evolved the perfectly conclusive proof, given by Mr. Russell on page 40, that this implication does hold. So I think that the credit must go to the mathematician H., who is not mentioned in the present work.

(ii) I am not convinced by the arguments to prove that Humpty-Dumpty was an Hegelian. True, he could not understand mathematics. But, granted that no Hegelian can understand mathematics, so many other philosophers are in the same position that Humpty-Dumpty's defect does not add appreciably to the probability of his being an Hegelian. After all he might as well have been a Bergsonian. No doubt his synthesis of belt and cravat seems to favour the Hegelian hypothesis; but when we remember that Bergsonians are able to persuade themselves that colours are vibrations, we see that the confusion of a belt and a cravat (which are at least *in pari materia*) would be child's play to Humpty-Dumpty if he were a Bergsonian. Again, Humpty-Dumpty's preference for seeing the sum $365 - 1 = 364$ 'in writing' is much more in accordance with Bergson's views of mathematics than with Hegel's. Lastly, our historical information about the career and painful end of Humpty-Dumpty is strongly in favour of the Bergsonian hypothesis. Surely it illustrates only too clearly the *elan vital* dropping down into mere mechanism, from which 'all the king's horses and all the king's men' cannot restore it, thus furnishing an ideal first-order joke for Bergsonians. It cannot simply have been an Hegelian 'collapse into immediacy'; for that would have been followed by a synthesis, which, we are told, could not be accomplished in Humpty-Dumpty's case.

(iii) A new view as to the question of where the mind is was revealed to me lately by an observation overheard in a tea-room in Dundee. A lady at my table was pouring out for a family party and made some mistake about milk or sugar. She observed (in a Scots accent which, as a foreigner, I do not attempt to reproduce), 'I don't know where my brain can be; I'm sure it can't be in my head'. I conclude that she held the very unusual view that her *mind* was in her head permanently, but that it could only work on her body when her *brain* happened to be there too, and that her brain was liable to wander to other parts of her body.¹

In conclusion we may heartily recommend Mr. Jourdain's book to all who can appreciate jokes of orders above the first or desire to get some notion of the High Table at Trinity as it was before the war came and spoiled everything.

C. D. BROAD.

The Principles of Citizenship. By SIR HENRY JONES. Macmillan, 1919.

It was a happy suggestion of Sir Henry Hadow that led, as we learn from the preface to this little book, to the Y.M.C.A. asking Sir Henry Jones to write an account of the principles of citizenship for the classes in 'civics' which a year ago it was forming among our soldiers at the front. Like all that comes from its author, it is sympathetic, inspiring and, in the best sense of both words, at once philosophical and religious. It would have been this, had it been no more than a repetition of his University teaching for the benefit of a new audience. But it is more; it represents the fruit of his meditations when 'like numberless other persons, driven back upon' himself 'by the war' and 'obliged to ask whether after all' he and the science he professes have any use. These meditations

¹ Can she have been a disciple of Prof. Alexander? The question is perhaps unanswerable till his Gifford Lectures have been published; but she may have heard and possibly misinterpreted them.

have, however, left him as convinced as ever that neither emotion nor faith, feelings nor intuitions can do the work of reason; and at a time when many 'substitutes for reason' (p. 21) are loudly advertised, this profession of loyalty to the true mistress of all philosophers is welcome.

For Sir Henry Jones two faiths were at grips with one another in the war; the faith that the State has no duty but to be strong and the faith that her supreme purpose is moral. The latter faith is his own; but he is careful by a fine exposition (in ch. 4) of the truth contained in the Hegelian theory of the State to remind us that it is more important to bear in mind what is of permanent value in that theory than to abuse it on account of the 'corrupt following' of it by our late enemies. He parts company decisively with this 'corrupt following' when he says (p. 140) that 'the State has no authority except on the assumption that it also speaks in a name that is higher than its own'. But when he describes this higher as 'the good of all rational beings' and tells us that 'natural rights are in the human being in virtue of the recognition of a common good,' he, like other thinkers of his school, takes too much for granted the obviousness of the connexion between the correlative conceptions of authority and obligation and the notion of a 'common good,' and the possibility of *explaining* the former by the latter.

While insisting eloquently on the importance of regarding the State as moral in its purpose and function, Sir Henry Jones makes it clear that so to regard it does not necessarily involve us in 'the cardinal error of pacifism' (p. 72), the belief, as he puts it, in the absolute value of the particular fact and forgetfulness that 'duty is never done *de haut en bas*'. The problem of the 'conscientious objector' is wisely and understandingly handled on pp. 158-9.

On the future relations of capital and labour among ourselves, the difficulties in adjusting which are largely due, as he points out, to the fact that we, like the Germans, have allowed material progress to outrun moral, although we have not justified our fault by making it our creed that the State is above morality—Sir Henry Jones's position is one of generous but not indiscriminating optimism. And this optimism is rooted in his religious faith. The admirable and inspiring little book ends on a religious and indeed (in a quotation from Tennyson) on a definitely Christian note.

C. C. J. W.

The State in Peace and War. By JOHN WATSON, LL.D., Litt.D., D.D., Professor of Moral Philosophy in Queen's University, Kingston, Canada.

Professor Watson is in political philosophy a disciple of Green; and those acquainted with the teaching of the school to which he belongs will find little in this work which is not already familiar to them. It is a fundamental feature of this teaching that the notion of obligation is assumed to depend upon that of a 'common good' far more obviously than to the present writer it seems to do; and the consequent subordination of the former notion to the latter by thinkers who are justly regarded as standing for the ethical and spiritual interpretation of human life has, I venture to think, had an unfortunate effect upon the attitude toward political authority of a generation brought up in an intellectual atmosphere which these members have done much to form. It is without surprise that we find Prof. Watson doing something less than justice to Kant's theory of punishment; for, although Kant's use of the word 'autonomy' must bear a considerable share of responsibility for the subsequent tendency to find in the conceptions of a 'common good' and a 'general will' an adequate

explanation of 'authority,' the consciousness of obligation is with him primary and self-explanatory in a sense in which it is not (for example) Green—and his theory of punishment is closely linked with this view of the consciousness of obligation. The most interesting chapter in Prof. Watson's book is the ninth, in which he distinguishes the relation and absolute sovereignty of the State and criticises the views of Mr. G. D. H. Cole.

I may be allowed to add that Prof. Watson scarcely seems to realise that our progress in the knowledge of mediæval thought has reached a point at which a scholar can no longer without fear of reproach give with an air of assurance, after a scanty survey of some accredited books of reference, such a second-hand account as appears in ch. iii; the value of which is sufficiently indicated by the confident statement on p. 71 that by the Scholastics 'philosophy was employed solely in support of the accepted doctrines of the Church'. Again, to say (in words which would certainly amuse Lord Bryce himself) that 'Lord Bryce has shown conclusively' (the italics are mine) 'that the Roman Empire did not cease with the extinction of the Western Empire in 476' is rather like saying that the late Mr. Gardiner had 'shown conclusively' that the title of King of France was not abandoned by the English sovereigns till 1800, because one had happened first to learn the fact from his history of this country. A misprint (the omission of 'as') on p. 157 unfortunately makes Mill seem to say the opposite of what he really does say.

C. C. J. W.

Cultural Reality. By FLORIAN ZNANIECKI, Ph.D., Lecturer in Polish History and Institutions in the University of Chicago. University of Chicago Press, 1919. Pp. xv, 359.

This book may be regarded as a characteristic product of the (Western) American Sociological school. It claims to be "the first part of a general introduction to the philosophy of culture, to be supplemented soon by a second part bearing upon the fundamental principles of creative activity". It "intends to lay the formal foundations" for a "philosophy of culture which has" a standpoint and a method applicable to the entire field of research which has belonged or can belong to philosophy. The author proceeds to comment on "the paradoxical situation" of modern professional philosophy, "which is slowly waning for lack of material," while there is a wealth and variety of materials for philosophising as never before (p. v). This situation he attributes to the futile antagonism between a stationary idealism which, whether it calls itself "Platonism, mediæval realism, Kantianism, Fichteanism," has "lost all touch with modern science" (p. 5), and a naturalism which "considers free creation a psychological illusion," and rules out all intellectual, moral and æsthetic values. For both he wishes to "substitute a new culturalistic philosophy" which, based on history, recognises values on the one side (though it denies that any are absolute), and on the other, "the growth of the range of control which we exercise over nature" (p. 17), so that "nature as it is now is in large measure the product of human culture" (p. 22). Such a programme is, of course, bound to bring him into contact with humanistic pragmatism, though it is not easy to gather from the present volume how precisely he will ultimately conceive his relations to it. For so far he is too much concerned with laying deep the 'formal foundations' of his 'culturalism,' and gives little indication to his reader of the plan of the whole structure. He declares, however, that he is "inclined to consider himself almost a disciple of pragmatism" though "to become an orthodox pragmatist would mean to sacrifice the spirit for the letter" (p. xiv),

and though he (no doubt rightly) thinks it is high time that pragmatism should substitute systematic reconstruction for criticism of "traditional dead doctrines".

As a matter of fact, judging by the surface indications, I should say that Dr. Znaniecki appears to be a pragmatist of the Chicago School. Indeed, I know no one who has developed and analysed some of its characteristic conceptions more elaborately. His account of the interplay of thing, situation, scheme ('plan') and 'practical dogma' (= working belief) is very full and constitutes a valuable contribution to the theory of the 'making of reality'. The one assumption I should be most disposed to question, *viz.*, that the antithesis of 'practical' and 'theoretical' is fundamental and adequate, may be only methodological; for page 325 postpones to a more convenient occasion the problem of "the connexion between practical and theoretic activities as such," though to be sure even this formulation seems in strictness to rule out the possibility that 'pure theory' may prove to be an abstraction which it is impossible to carry through consistently. Otherwise Dr. Znaniecki is generally right in what he says, from a pragmatic point of view, especially in recognising the importance of values. But from a literary standpoint he errs by saying too much and saying it much too solemnly. His argument would gain enormously if it were cut down to half its length, relieved of two-thirds of its technical jargon, illumined with illustrations, made digestible by recourse to the arts of exposition, and hence equipped with forecasts, summaries, sections and analytical tables of contents. As it stands it is too painfully clear that it is of the books written for professors by professors when they are seized with apprehension lest their subject should degenerate into popularity. But this no doubt was intentional—for had not a university press to be found to publish it?

F. C. S. SCHILLER.

Evolution and the Doctrine of the Trinity. By STEWART A. McDOWALL, B.D., Cambridge. At the University Press, 1918. Pp. xxvii, 258.

The writer of this volume endeavours to show that the doctrine of the Trinity can be rationally interpreted. He assumes that God must be personal, and then proceeds to argue analogically from the nature of man to the threefold nature of the Godhead. The book is interesting and sometimes suggestive, while it is marked by considerable independence of thought. But, if one may judge from his lack of discernment of the difficulties involved in some of his theories, Mr. McDowall's philosophical knowledge is not very thorough; and his psychological equipment is conspicuously defective.

The attempt to find an image of the Trinity in the nature of man is as old as Augustine, but Mr. McDowall is no more convincing than the Church Father when he argues from a triplicity in human nature to tri-personality in God. God, we are told, is both immanent and transcendent, and is limited by the world and man only in the sense that He limits Himself. The transcendent sphere is the sphere of pure being or absolute reality, while the immanent sphere is the sphere of becoming and of relativity. The transcendent or perfect experience of God is that of simultaneous reality—an eternal now. It is not explained how a Divine Mind which excludes changing states can be conceived as a personal consciousness. Again, it is said that God reveals Himself through his attributes, which are the modes in which He is manifested to beings external to Himself: the attributes are not primary but derivative. Yet this line of thought, which appeared in the Alexandrians and Neo-Platonists,

tends to reduce the absolute nature of God to the abstraction of pure being, and empties it of religious value. It is significant that the author thinks goodness can only be predicated of God in His relation to the world and man.

Mr. McDowall contends that the nature of man reflects God and helps us to interpret Him. Man manifests the same union of transcendence and immanence, and the true direction of his life is from process to pure being. The human subject discloses the three aspects of Fatherhood, Sonship, and Spirit as the unity of both. In psychology this corresponds to conation or creative striving, to cognition or mediatorial function, and to affection, the feeling which links the other two. The writer's defective psychology appears when he says: "I must look on myself as three hypostatised functions, three personal entities, when I, by introspection, consider what makes up the unity that I call myself". It is hopeless, we may add, to argue from the psychological distinctions of thought, will, and feeling to the possibility of a trinity of persons in one personality. As another illustration of confused and inaccurate psychology take the following passage: "For conation is the manifestation of will, cognition is the basis of intellect, and affection emerges from feeling, or sensation, and is emotional". And when Mr. McDowall goes on to remark, "I am one and free through my emotions," and speaks of emotion as 'a free cause,' one can only wonder what he means by emotion.

The book is a candid effort to deal with a difficult problem, but it will not convince many.

G. G.

The Relation of John Locke to English Deism. By S. G. HEFELBOWER, Professor of Philosophy in Washburn College, Topeka, Kansas. The University of Chicago Press. Pp. viii, 188.

The volume before us contains an investigation of a definite historical problem, *viz.*, the nature of the relation between the religious and philosophical views of Locke and the positions taken up by the group of writers who constituted the Deistic Movement in the England of the latter part of the seventeenth and the first half of the eighteenth centuries. After a survey of previous answers to this question, some remarks on method, and an examination of the part played by "the two focal concepts" of Nature and Reason in the thought of the age, the main problem is itself tackled. This is done by means of a detailed comparison between the views of Locke and those of the leading representatives of Deism on the chief points at issue in the Deistic controversy, supplemented by a consideration of the direct evidence of any influence exerted by Locke upon these thinkers. The conclusion reached is that while Locke and the Deists belong to the same general movement, there is no justification for regarding the relation between them as one of dependence, or for attributing to the philosopher any definite responsibility for the development of the specific tenets of the Deists. The author's examination of the evidence is painstaking and thorough, and his conclusion on the particular point raised by him seems to me to be amply substantiated. So far as Locke's religious views are concerned, they were undoubtedly rather those of the liberal opponents of Deism than of its supporters, while the whole controversy had little direct relation either to philosophy or to the more fundamental conceptions of theology. In his occasional references to those larger questions the author's touch is apt to be less sure. Thus, to take a single instance, it is disconcerting to read that Locke "perhaps recognised the cosmological proof" of the existence of God (p. 85), whereas elsewhere it is rightly stated that Locke's own proof was the cosmological, and that he regarded it as demonstrative.

J. G.

Myself and Dreams. By FRANK C. CONSTABLE, M.A. London: Kegan Paul, Trench, Trubner & Co. New York: E. P. Dutton & Co. Pp. xii, 358.

There hardly seems to be novelty enough about Mr. Constable's speculations about ultimate problems to compensate for their obscurity, but psychologists should be interested in his Preface. They may learn from it that "in the year 1867 personal human experience convinced me not only that personality survives death but that we, still in the body, may have communion with the disembodied. . . . That experience of 1867, and two, later, of a like kind . . . have certainly affected my direction of thought. I believe they have changed my life and conduct," and will probably infer that if other writers on philosophy were equally candid about the origin of their stimulus to philosophise, the belief in a dispassionate love of pure thought could not long survive such revelations. There is a curious passage on p. 233 crediting Kant with a confusion arising from "his use of the omnibus word tuition": presumably this is a misprint for "intuition".

Received also—

- George Galloway, *The Idea of Immortality: The Baird Lecture*, 1917, Edinburgh, T. & T. Clark, 1919, pp. viii, 234.
 Franz Boas, *Kutenai Tales*; *Bureau of American Ethnology*, Washington Government Printing Office, 1918, pp. xii, 387.
 Julius Pikler, *Sinnesphysiologische Untersuchungen*, Leipzig, Johann A. Barth, 1917, pp. viii, 513.
 C. E. M. Joad, *Essays in Common Sense Philosophy*, London, Headley Bros., 1919, pp. 252.
 Vladimir Solovyov, *The Justification of the Good: An Essay on Moral Philosophy*, translated from the Russian by Natalie A. Duddington, London, Constable & Co., 1918, pp. lxiii, 475.
 W. H. B. Stoddart, *Mind and its Disorders*, 3rd edition, London, H. K. Lewis & Co., 1919, pp. xx, 580.
 A. N. Whitehead, *An Enquiry Concerning the Principles of Natural Knowledge*, Cambridge University Press, 1919, pp. xii, 200.

IX.—PHILOSOPHICAL PERIODICALS.

PHILOSOPHICAL REVIEW. Vol. xxviii., No. 1. **H. N. Gardiner.** 'The Psychology of the Affections in Plato and Aristotle, II. Aristotle.' [Exposition of Aristotle's doctrine. Aristotle comes nearer than any other ancient writer to the discrimination of the psychological point of view; and his account of emotion, imperfect as it is, and especially his view of pleasure as a concomitant of the normal exercise of vital function, though that, too, is incomplete, are of permanent psychological value.] **A. K. Rogers.** 'The Place of Pleasure in Ethical Theory.' [The feeling-tone which constitutes the nature of approval, and therefore that of goodness, has its source in the appeal which ends make to our impulsive nature, the same source which makes them an original object of desire or occasion of satisfaction. The ethical superiority of approval over mere desire lies in the fact that it is a reflective judgment. This doctrine is to be distinguished from that of historical hedonism.] **C. A. Richardson.** 'The Notion of a Deterministic System.' [The material world can be regarded as a deterministic system only if we isolate it from mind. But the universe contains subjects of experience, which cannot be reasonably said to be either determined or not determined: hence the universe is not a deterministic system. This argument is clinched by appeal to freedom of the will, i.e., to the fact that purposes and interests are hidden in the individuality of the man.] Discussion. **J. Lindsay.** 'The Formal Ego.' [Critique of Pringle-Pattison. Form and content are inextricably interwoven, and to make abstraction of the formal ego from the knowledge-relation is a violent cleavage of the ego, which in fact is one and indivisible.] **A. K. Rogers.** 'Mr. Moore's Refutation of Idealism.' [Moore's whole argument turns on the equivocation of conscious or psychical reality as an existent, an ontological fact, and consciousness as a term of knowledge, or epistemology.] **Reviews of Books.** **Notices of New Books.** **Summaries of Articles.** **Notes.**—Vol. xxviii., No. 2. **M. W. Calkins.** 'The Personalistic Conception of Nature.' [(1) Psychological vitalism, or personalism, is the best antidote, to materialistic mechanism; it is, e.g., a superior alternative to Hoernle's teleological vitalism. (2) A complete personalistic cosmology must maintain idealism against both dualism and materialism; personalism against ideistic idealism; and a non-solipsistic or non-subjective form of personalism. The writer indicates summarily the outline of her argument under these three heads. (3) Suggestions by Leibniz and Royce lead to the distinction of three types of selves, as viewed from the human standpoint: the intercommunicating, the communicating, and the uncommunicating. (An excursus deals with the personalistic conception of the body, as phenomenal sign of me, as felt by me alone, and as inferred object containing spleen, liver, etc.) (4) Personalism is not to be confused with pre-animism, phenomenalism, or the doctrine of a lawless universe; moreover, the dynamic theories of recent physics indicate that the concept of the conscious self lies at the core of speculative science.] **N. Wilde.** 'The

Development of Coleridge's Thought.' [Coleridge was a Platonist of the mystic type, for a few years intellectually entangled with associationalism, and later charmed by the technical vocabulary of German transcendentalism; but always at heart a continuer of the tradition of Hooker and the Cambridge Platonists, and alien to the trend of the 18th century.]

J. C. Gregory. 'Mind, Body, Theism, and Immortality.' [Life and mind sprang out of matter and have remained in connexion with it; but, in spite of interdependence, have developed in accordance with their own principles and nature. This development suggests that mind may achieve independence, and thus survive the death of the body. There is nothing in evolution to negate theism.]

H. A. Overstreet. 'Proceedings of the American Philosophical Association: the Eighteenth Annual Meeting, Harvard University, December 27, 28, 1918.' Reviews of Books. Notices of New Books. Summaries of Articles. Notes. Vol. xxviii., No. 3.

A. K. Rogers. 'Essence and Existence.' [The knowledge-situation includes objective existent, mental existent, meaning (character, essence) and mental act. Meaning may be disengaged by selective attention from both existents; the correspondence of the two meanings is then due to the relation of active tension between organism and environment. Symbolic meaning or sense of direction is always reducible to the concrete; existence is directly vouched for by inner experience.]

H. E. Barnes. 'The Philosophy of the State in the Writings of Gabriel Tarde.' [Tarde is concerned particularly to explain the origin and transformation of political authority. Although his tendency is strongly psychological, the treatment of these problems is historical or genetic rather than analytical.]

H. E. Cunningham. 'Analysis as a Method of Philosophy.' [The analytic method as treated in Holt's *Concept of Consciousness* cannot be applied, since it turns out that there are no means of applying it; and the same method as applied to philosophical problems in Russell's *Scientific Method in Philosophy* is involved in a circle.]

Discussion. **B. Bosanquet.** 'Appearance and Reality and the Solution of Problems.' [Sound philosophy aims to interpret and revalue the world of appearance rather than to construct a second and alien world; and modern idealism conforms to this procedure.]

W. P. Montague. 'The Conflicts of Reason and Sense; a Rejoinder to Dr. Bosanquet.' [The antinomy of reason and sense is fact, historical and present; and the idealistic absolute is not valid and immanent but transcendent and irrelevant.]

K. Gilbert. 'Philosophical Idealism and Current Practice.' [Bosanquet over-estimates practice; the generation is complacent and not self-critical.]

Reviews of Books. Notes of New Books. Summaries of Articles. Notes. Vol. xxviii., No. 4.

H. W. Wright. 'The Social Significance of Education.' [Within the continuity of biological process types of imagery that originally had only survival-value have been put to rational and social ends. Language, constructing a socially accepted system of knowledge, makes for intellectual insight and spiritual vision; technical devices further human co-operation, and thus acquire ethical significance; art tends to sympathy and rational concord. Hence the educator must remember that he deals with social selves, and that the work of education is to make men capable of rational intercourse and to bring out whatever powers they have of enlarging the scope of the rational order.]

B. I. Gilman. 'The Logic of Cosmology.' [Either there is no soul, and therefore no cosmos; or there is nothing but soul, in which case the cosmos is potentially tripartite. For a universal soul may exist beneath every individual soul; or every individual beneath a universal; or these correlative conceptions may be combined.]

D. T. Howard. 'The Descriptive Method in Philosophy.' [The pragmatist definition of experience,

which is open to the logical charge of *hysteron proteron*, may be tested in the instance of Thought, a process in experience. We find that the 'descriptive method' is left vague, with illustration offered in place of description; and we find that thought is taken indirectly,—biologically, sociologically, anyhow rather than directly, that is, logically.] **J. L. Mursell.** 'The Function of Intuition in Descartes' Philosophy of Science.' [Intuition means for Descartes the actual practice and procedure of the expert scientific investigator; its correlative simple natures are universals. Methodologically, his approach to the problem of externality would lead to a subjectivism; but while he would not have taken seriously the view ordinarily ascribed to him, he has no other explicitly and consistently worked out.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes.

PSYCHOLOGICAL REVIEW. Vol. xxv., No. 5. **S. B. Russell.** 'Communication, Correspondence, and Consciousness.' [Consciousness relates primarily to environment, and depends upon mechanisms for communication and mechanisms of correspondence. The latter are mimetic (perceptive) and image processes, which depend upon complex nerve-mechanisms composed largely of mechanisms of associative memory.] **L. T. Troland.** 'The Heterochromatic Differential Threshold for Brightness: II. Theoretical.' [The heterochromatic factor (heterochromatic limen referred to homochromatic as unity) is greater for antagonistic than for non-antagonistic pairs, and greater for warm-cold than for warm-warm or cold-cold pairs. The results suggest the use of circular notation rather than that of linear symbolism (colour pyramid) to represent the relations of the hues. Oscillation of the axes in respect to which definite hues and luminosities are measured indicates the advantage of flicker photometry over direct comparison. The paper ends with a consideration of the measures of variation.] **H. B. Reed.** 'Associative Aids: III. Their Relation to the Theory of Thought and to Methodology in Psychology.' [The intentional and the sensationalistic theories of thought are alike unnecessary and inadequate. Thought is merely a stage in habit-formation, beginning with a problem and ending with a habit; it works by means of associations, which disappear as the work draws to completion. The method of objective or common-sense report is superior to that of psychological description.] **R. Pintner.** 'Community of Ideas.' [Repetition of the Boring-Whipple test with university students, school-children of 13 and over, and school-children of 12 and below. The responses show little variability; there is great similarity between children and adults; the frequency-percentages of the commonest responses are highly stable.] **C. Rahn.** 'Psycho-analytic Concepts and Re-education.' [There are four factors in psychical healing: diagnosis, enthusiasm, the formation of an ideal of behaviour, and the creation of an attitude that favours re-education. The Freudians secure enthusiasm; their picture of the normal state functions in the same way as the 'instruction' in the psychological laboratory; their concept of the *libido* has a high stimulus-value as a releaser of energy. But this value says nothing of the scientific content of the concept.]—Vol. xxv., No. 6. **E. C. Tolman.** 'Nerve Process and Cognition.' [Cognition consists in the placing of the given object in a setting: neurologically, in the activity of a specific (specifically interrelated) path in the association neurones. The cognitive experience is a meaning *plus* (in the case of sense-qualities) a raw feel.] **J. Peterson.** 'Experiments in Rational Learning.' [Experiments on the learning of random connexions of the numbers 1 to 10 with the letters A to J. The method promises results, not only for the estimation of general intelligence, but also for the analysis of traits of

character. Rational learning appears to differ from trial and error only in the explicitness with which the elements of the situation are reacted to and retained for later use.] **E. A. Esper.** 'A Contribution to the Experimental Study of Analogy.' [Extended repetition of the work of Thumb and Marbe. The most frequent associations are the most rapid: words of a given category are associated predominantly to words of the same category; English and German associations correspond for most words of familiar meaning and general use; children and uneducated adults have longer reaction-times than educated adults, but the associations are essentially similar.] **H. S. Langfeld.** 'Judgments of Facial Expression and Suggestion.' [Preliminary experiments with selected pictures from Rudolf's *Ausdruck des Menschen*. There is promise of a rank-order of recognitions (laughter, amazement, and bodily pain are the most easily recognised expressions) and of a quantitative differentiation of suggestibility.]—Vol. xxvi., No. 1. **J. R. Kantor.** 'Psychology as a Science of Critical Evaluation.' [Critique of mental chemism and behaviourism. The critical evaluative function, which constitutes scientific activity, is an amplification of experienced events, and makes for consistent control of the further progress of experience. Psychology must apply this function to conscious behaviour.] **C. E. Ferree and G. Rand.** 'Chromatic Thresholds of Sensation from Centre to Periphery of the Retina and their Bearing on Colour Theory: I. [Determination of the chromatic limens (R, G, B, Y) in terms of energy at near-lying points from centre to periphery along the temporal and nasal meridians. Discussion of irregularities in the curve of sensitivity for the different colours in a given meridian; of differences in sensitivity at corresponding points (especially the more remote) of the two meridians tested; of the non-uniformity of ratio of sensitivity to the pairs R-G, B-Y, from centre to periphery; and of the correspondence of distribution of sensitivity to R, G, Y with changes in the colour-tone of R and G from centre to periphery.] **F. A. C. Perrin.** 'The Learning Curves for the Analogies and the Mirror-Reading Tests.' [The results are alike as regards initial slope of curve, greater improvement and greater variability of inferior subjects, and reliability of initial scores as indices of accomplishment; yet there is no correlation between the rankings of the subjects. The positive results indicate that intelligence should be defined in terms of immediate adjustment, and not in terms of capacity for improvement; the negative, that explanation must be sought in the nature of the tests themselves, and not in the personnel of the practising group.] **C. L. Hull and R. B. Montgomery.** 'An Experimental Investigation of Certain Alleged Relations between Character and Handwriting.' [Six traits of character show no correlation with their alleged graphological indices.] **C. H. Griffitts and W. J. Baumgartner.** 'The Correlation between Visualisation and Brightness Discrimination.' [Correlation is slightly positive; but differences in visualisation cannot be referred to differences in visual sensitivity. There is no correlation of brightness discrimination with memory for letters and digits or speed of multiplication.]

AMERICAN JOURNAL OF PSYCHOLOGY. Vol. xxix., No. 4. **A. Berliner.** 'The Influence of Mental Work on the Visual Memory Image.' [A comparison of morning and evening images, and of images before and after a short period of intensive work, shows that imagery suffers from mental work. The best indices are the time an image can be kept, and the duration of the single image.] **W. R. Wells.** 'The Theory of Recapitulation and the Religious and Moral Discipline of Children.' [Childhood and early youth correspond with the primitive religions, later youth with the morality religions, and adolescence with the rise of the redemptive

religions. The adoption of this correspondence suggests a reconciliation of Hall's and Dewey's views regarding discipline and tabus.] **W. R. Wells.** 'The Biological Value of Religious Belief.' [The primary values are moral and hygienic; secondary values are industrial, scientific, artistic, legal, and social.] **A. Schinz.** 'Intellectualism versus Intuitionism in French philosophy since the war.' [French philosophy before the war was tending to sentimental socialism (Jaurès), moralism (Boutroux), and intuitionism (Bergson). The revolt has been begun by Benda (*Sentiments de Critias*) and Lote (*Leçons intellectuelles de la guerre*).] **C. L. Friedline.** 'The Discrimination of Cutaneous Patterns below the Two-point Limen.' [If the stimulus-error is admitted, and the impressions are taken as cutaneous objects, an extreme delicacy of discrimination may be attained. The considerable changes in the limen hitherto ascribed to practice and fatigue depend in all probability on shift of the subject's attitude toward such cutaneous objects.] **P. T. Young.** 'The Localisation of Feeling.' [Pleasantness and unpleasantness are not localisable. Localisation and extent, as well as qualitative differences of 'feeling,' are due to the sensory components of the unanalysed object-feeling of common sense.] **H. B. Smith.** 'Aristotle's Other Logic.' [The classical scheme of inference is a special case of a more general system (the semi-Aristotelian system) which admits 'nothing' and 'universe' as possible meanings of terms.] **J. F. Dashiell.** 'Sixteen Origins of the Mind.' [A sketch-list, without documents, of possible derivations of the category of the 'mental'.] **E. B. Titchener and H. P. Weld.** 'Minor Studies from the Psychological Laboratory of Cornell University.' **F. Cutolo.** 'xliii. A Preliminary Study of the Psychology of Heat.' [Heat, which results from the simultaneous stimulation of warm and cold spots, lies in a qualitative series between pressure and pain.] **A. S. Phelps.** 'The Mental Duet.' [Man and woman differ as distributive and secretive, aggressive and receptive, rational (inductive-deductive) and intuitive (instinctive-imaginative).] Book Reviews. Book Notes.

JOURNAL OF PHILOSOPHY, PSYCHOLOGY AND SCIENTIFIC METHODS. xvi., 6. **W. Fite.** 'Felix Adler's Philosophy of Life.' [A lucid and readable review of Adler's *An Ethical Philosophy of Life*.] **F. J. Teggart.** 'The Approach to the Study of Man.' [Demands a scientific attitude.] **K. Dunlop.** 'Scientific Prepossession and Anti-Scientific Animus.' [A reply to Warner Fite's attack on laboratory psychology in the *Atlantic Monthly* of December, 1918.] **A. A. Merrill.** 'Prediction and Spontaneity.' [Prediction is only possible where the time of the prediction is irrelevant to what is predicted.] xvi., 7. **G. A. Tawney.** 'Logic as the Science of the Pure Concept.' [An enthusiastic review of Croce.] **H. S. Jennings.** 'Experimental Determinism and Human Conduct.' [“It implies only that if what now occurs were different, the earlier conditions would have been different.”] **J. E. Turner.** 'Dr. Dawes Hicks on Reality and Its Appearances.' [Denies that his theory works out.] xvi., 8. **J. H. Leuba.** 'The Yoga System of Mental Concentration and Religious Mysticism.' [Reviews the translation of Patanjali by J. H. Woods, and compares the methods and aims of Yoga with those of drug-intoxication and religious mysticism.] **J. Warbeke.** 'A Medieval Aspect of Pragmatism.' [Argues that it implies an objective and man-centered teleology.] **W. M. Salter.** 'Mr. Marshall on Outer-World Objects.' [Comment on Rutgers Marshall in xvi., 2.] xvi., 9. **A. H. Lloyd.** 'Luther and Macchiavelli, Kant and Frederick.' [“Frederick while outwardly perhaps resembling Kant, really inverted the Kantian emphasis, as aforementioned Macchiavelli had inverted the emphasis of Luther.”] **J. R. Kantor.** 'Human Personality and Its Pathology.' [A classificatory paper mainly,

which contains however a suggestion that the dissociated "differ from normal persons who of course always comprise numerous selves, in that the latter have their experiences unified and harmonious. The various selves represent responses to varying surrounding conditions, all of which are threads of a common fabric. In the dissociated personalities there are different weaves which may become disjointed." **H. B. Alexander.** 'Wrath and Ruth.' [A rhapsody on the War which ends with the suggestion that the birds will outlast man.] **W. R. Wells.** 'The Biological Foundations of Belief.' [A reply to Schiller in xv., 19, which, while claiming agreement with him as to the biological foundations of beliefs, declares that "one goes contrary to established usage of the term 'truth,' if one asserts that the truth of beliefs is tested by their survival-value," because "common sense and science assert that 'truth is so' whether or not it is known by any human mind."] **E. C. Parsons.** 'Teshlatiwa at Zuñi.' [An account of fear of the dead among Pueblo Indians.] xvi., 11. **H. T. Costello.** 'The Value of False Philosophies.' [Thinks that the errors of philosophers "are seldom to be dwelt upon, but the tone and colour and flavour of their vision are a priceless heritage, a new glory that is given to all mankind."] **S. A. Elkus.** 'Purpose as a Conscious Concept.' [Criticises the method H. C. Warren's 'Study of Purpose' in xii., 1, 2, in reducing purposive to mechanical action. It is shown that the description of a purposive act as one in which the idea precedes the perception instead of *vice versa*, involves an ambiguous use of 'idea'. The 'idea' which follows perception is simply representative of a specific perception, whereas that which precedes is "representation plus a prospective element" and means to refer to the future. Thus there is a 'present future' in the purposive 'idea'. Also Warren continually commits the 'psychologist's fallacy.'] **G. A. de Laguna.** 'Dualism and Animal Psychology, A Rejoinder.' [To Washburn in xvi., 2; points out that taken methodologically, not metaphysically, behaviourism is simply the scientific demand for definite identifiable conditions of experiment, and as such must treat the 'introspections' of the 'dualist' as 'responses' to be interpreted. At the same time it is admitted that actual behaviourists have not yet given adequate interpretations especially of 'sensations'; still "behaviourism offers the only promising theoretical basis for a fruitful analysis of the nature and limits of introspection." It need not be 'mechanistic' because the responses studied are too complex to be interpreted by the mechanical categories.] xvi., 12. **J. H. Randall, jun.** 'Instrumentalism and Mythology.' ["Mythology or philosophy (for philosophy is simply mythology grown less colourful and more respectable) serves two important functions: it enables man to create a world congenial to his own personality . . . and also serves for the creation of new facts in the world of existence, for the moulding of that world to the will of man." Pragmatism too must make its myths of 'consolation' and 'control'.] **W. D. Wallis.** 'The Objectivity of Pleasure.' [Denies that every man is "the infallible judge of whether or not he is experiencing pleasure," and defines pleasure as "the doing of a thing for its own sake". 'True' pleasure will then be "that which should be done for its own sake". How this is to be determined is postponed.] **W. H. Sheldon.** 'Dr. Goldenweiser and Historical Indeterminism.' [Cf. xv., 20, 21. Thinks that Goldenweiser unconsciously proves the indeterminism he disclaims.] xvi., 13. **G. A. Barrow.** 'A Defect in the Argument for Realism.' [Criticises as merely negative the search for "things as they really are unmodified and unconstituted by the act of knowing," and requires realism to produce an account of relations other than a denial of their reality.] **J. L. Mursell.** 'The Critical Philosophy and the Theory

of Types.' [The contention that Kantian Philosophy is radically vitiated by 'reflexive' and 'vicious circle' fallacies would be more persuasive if the author had deigned to illustrate precisely *how*, instead of merely deducing that it must be because it makes assertions about the totality of propositions.] This number also contains an interesting syllabus of eight lectures on the 'Problems of Philosophic Reconstruction' delivered by **Prof. Dewey** at the Imperial University of Tokyo in February and March, 1919. xvi., 14. **W. H. Sheldon.** 'The Defect of Current Democracy.' [Social cowardice, which suppresses the independent and superior individuals necessary to progress.] **H. B. Smith.** 'On the extension of the Common Logic.' [By setting aside "the restriction that the terms of the syllogism shall remain distinct".] **W. D. Wallis.** 'What is Real Pleasure?' ["The pleasure which is truly and not falsely pleasure, reality and not illusion, is that pleasure which is part of the larger pleasure, namely the realisation of our purposes." *What purposes? is not discussed.*]

ARCHIVES DE PSYCHOLOGIE. Tome xvi., No. 3. **C. Jéquier.** 'L'emploi du calcul des probabilités en psychologie.' [Written for psychologists, and useful not only mathematically, but also because of its insistence on the tacit assumption of equality of probabilities *a priori*, on the conflict between the laws of homogeneity and of large numbers, on the necessity of exercising judgment.] Recueil des Faits: Documents et Discussions. **E. Claparede.** 'Rêve satisfaisant un désir organique.' [A dream which expresses overtly the desire for fresh air.] **C. Werner.** 'XII^{me} Réunion des Philosophes de la Suisse romande.' [Discussion of Benrubi's paper on integral knowledge.] Bibliographie. Tome xvi., No. 4. **P. Bovet.** 'L'Institut J. J. Rousseau (1912-1917).' [Review of accomplishment and prospects of the Institute, as school, as research laboratory, as bureau of information, and as centre of propaganda.] **A. Descœudres.** 'Enquête sur l'évaluation subjective de quelques tests de Binet-Simon.' [The ratings by 24 competent judges of the results of 3 tests reveal individual differences which, in addition to their theoretical importance, may be of practical weight when the tests are used to distinguish normal and abnormal children. More regard should be paid to the rules laid down by Binet and Simon themselves.] **J. L. Des Bancel.** 'La conversation des images et les théories de la mémoire.' [There are two principal theories of memory, Bergson's doctrine of survival of the past and the theory of cerebral traces; psychology cannot decide between them.] **E. Claparede.** 'Chronoscope à usages multiples: "l'électro-chronoscope enregistreur de Dégalier".' Bibliographie. Nécrologie. Tome xvii., No. 1. **F. Naville.** 'Mémoires d'un médecin aphasique: auto-observation et notes psychologiques du Dr. Saloz père, de Genève, atteint d'aphasie totale suivie de guérison.' [In 1911, at the age of 60, Dr. Saloz was suddenly struck by a total motor aphasia (word-blindness, agraphia, right hemianopsia, right hemianaesthesia, motor apraxia: no hemiplegia, hardly any word-deafness). After some weeks a few words came back, whereupon the patient set himself the laborious task of self-reeducation. Cure was effected: and Dr. Saloz, who lived to 1917, left copious notes of his case. Extracts from these notes are here given, bearing on the patient's first impressions of his illness, his progressive recovery of internal speech, his diagnosis, and his views of aphasia in general and of his own seizure in particular. The extracts are annotated by Dr. Naville. A valuable paper.] **J. L. Des Bancel.** 'Sur les origines de la notion d'âme: à propos d'une interdiction de Pythagore.' [Diogenes Laertius explains the pythagorean tabu of beans on the ground that, being windy, they

partake of the nature of the soul. There is, in fact, no reason to confine the early notion of soul to the breath, to the exclusion of intestinal flatulence. But Jones' thesis that the breath is merely a 'symbol' of flatulence cannot be maintained.] **E. Claparede.** 'La conscience de la ressemblance et de la différence chez l'enfant.' [Consciousness of difference appears earlier and more readily than that of resemblance. But resemblance is primary: the individual's consciousness of a relation appears the later, the earlier his behaviour has implied the automatic, instinctive, unconscious use of that relation.] Bibliographie.

ZEITSCHRIFT F. PSYCHOLOGIE. Bd. lxxvi., Heft 5 u. 6. **R. H. Goldschmidt.** 'Beobachtungen ueber exemplarische subjektive optische Phänomene.' [A 'typical' subjective visual phenomenon is defined, provisionally, in Purkinje's way, as subjective both in apprehension and in origin. After an introductory review of Purkinje's work, and a brief mention of J. Mueller, the writer proceeds to his own observations: the typical subjective phenomenon is described in great detail under the headings of qualitative character (light and colour), configuration, localisation, field of vision (here is interpolated a comparison with dream-images), fluctuation and movement. The paper ends with a sketch of qualitative methods of studying the phenomena, and with remarks on the bearing of such study upon general psychology.] Literaturbericht. Bd. lxxvii., Heft. 1 u. 2. **M. Jacobsson.** 'Ueber die Erkennbarkeit optischer Figuren bei gleichem Netzhautbild und verschiedener scheinbarer Groesse.' [Experiments upon adults and children, with direct vision and instantaneous exposure of stimuli, show that in the case both of simple and of complex forms (strokes, letters, numerals) the small and near are in general more readily cognised than the large and distant. There are, however, individual differences. The results stand in connexion with the Aubert-Forster phenomenon, Koster's law, and certain work of Jaensch. Of the three typical theories, physiological, attentional, associational, the writer inclines tentatively towards the physiological.] **H. J. F. W. Brugmans and G. Heymans.** 'Versuche ueber Benennungs- und Lesezeiten.' [Brown had found that the naming of objects requires a longer time than the reading of the corresponding words, and had referred the explanation to physiology. The writers, by variation of the experiments, show that the temporal difference is not explicable by strength of association due to practice nor by definite direction (with reduced inhibition) of association, but that it is fully accounted for by differences of attitude (*Einstellung*).] **J. Plassmann.** 'Säkulare Verrenderlichkeit des Dezimalfehlers.' [Results of comparison of watch with astronomical clock from 1904 to 1916. Nearly all the odd tenths (1, 3, 5, 9) are under-observed, together with one even tenth (4). The over-observed tenths show fluctuations of long period; thus the 0 rises to a plateau, stays there for a time, and thereafter rises again; the 7 drops till 1908 and thereafter steadily rises, etc.] Literaturbericht. Bd. lxxix., Heft 1, bis 3. **H. H. Gehrcke,** bearbeitet von **G. E. Mueller.** 'Versuche ueber das Verhalten der Auffassungsfähigkeit gegenueber verschiedenen Gruppierungen schnell nacheinander durch das Gesichtsfeld gefuehrter Buchstabenkomplexe.' [Experiments upon the apprehension of linear series of three-letter syllables, variously spaced and speeded, under the instruction to mark the appearance of a certain vowel (or of certain vowels) by a simple speech-reaction. Errors are mainly conditioned upon expectation and perceptive indistinctness, which latter is conditioned, again, objectively upon period of visibility and subjectively upon attention and eye-movement. A general result is that uniform spacing of the syllables in a line is not the optimal arrangement.] **W. Baade.** 'Selbstbeobachtung

und Introvokation.' [Further discussion of the method of interruption or 'introvocation,' whose essential point is that an intercurrent stimulus serves as signal to the observer to shift from the task set him to introspective observation of his just-past consciousness, and of the instruments (especially time-recording instruments) necessary to it. Analysis of the previous results of Baxt and Schumann.] **W. Baade.** 'Experimentelle Untersuchungen zur darstellenden Psychologie des Wahrnehmungsprozesses.' [Experiments upon simple visual and tactual perceptions by the method of introvocation. The phase of the perceptive process which precedes speech falls into two sub-phases: the original (bare seeing or feeling) and the progressive (cognition without words). As the former is based on sensation and after-image, so is the latter (in these experiments) based invariably upon a memory-image. Becher's results, however, make it necessary to pursue further the question of an imageless progressive phase.] *Literaturbericht.* Bd. lxxix., Heft 4, bis 6. **Witasek,** bearbeitet von **A. Fischer.** 'Assoziation und Gestalt einprägung: Experimentelle Untersuchungen.' [Experiments with meaningless syllables and artificial words, designed to test G. E. Mueller's theory of the formation of complexes in learning. The results show that the complex is a matter neither of pure 'collective apprehension' nor of association (associations may, incidentally, either help or hinder), but rather of the emerging of a form (*Gestalt*). Temporal approximation of the components seems (within limits) to be without effect.] **G. Heymans.** 'In Sachen des psychischen Monismus, v.' [Reply to Becher. The objections of detail (simplicity of mind *vs.* complexity of brain, impermanence *vs.* permanence, etc.) may be met by counter-arguments based on analogy (description of simple quality in words) or on appeal to cognate facts (physical energy as permanent). In general, the correspondence need not be restricted to the unity of the individual central-consciousness.] **R. Hennig.** 'Lektüre-Vorstellungsbilder und ihre Entstehung.' [Visual images aroused by the reading of novels, plays, etc., conform in fundamental plan to the rooms and garden familiar to the writer from the third to the eighth year of his life.] *Literaturbericht.* Bd. lxxx., Heft 1, bis 3. **J. Wagner.** 'Experimentelle Beiträge zur Psychologie des Lesens.' [Tachistoscopic experiments, designed to test the conclusion of Erdmann and Dodge that with momentary exposure only 6 to 7 letters, but 21 familiar words, can be clearly cognised. It proves that the same number (20) of either letters or words may be perceived, provided that attention covers the whole area upon which the objects appear, and is not directed upon a central point of fixation. The theories of total word-form (Erdmann and Dodge) and of dominant letters (Zeitler) are thus rendered unnecessary; if gross word-form is of importance in ordinary reading, it is mainly by way of acoustic-motor images. Indirect vision is of assistance to later apprehension by direct vision.] **G. Heymans und E. Wiersma.** 'Beiträge zur speziellen Psychologie auf Grund einer Massenuntersuchung, viii.: Der epileptische Charakter.' [A frequent type of normal character shows the germs of what, in higher development, is the epileptic: liability to distraction and reduced activity. Both traits lead back to a labile attention, which is therefore the fundamental defect in epilepsy.] *Literaturbericht.*

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L. Houlléviq. 'Le grand péril de la Science.' [On the present danger of the partial or total disappearance of scientific work.] Book Reviews. General Review. **Roberto Assagioli.** 'L'école psychopathologique américaine.' [A study of the American psychopathological school headed by Prof. Morton Prince. Prince's book *The Dissociation of a Personality* (New York and London), on Miss Beauchamp's case is referred to, and also the papers of B. C. A. on "My Life as a Dissociated Personality" and of Prince on "The Unconscious" in the *Journal of Abnormal Psychology* for 1908-1909. Further, the work of Boris Sidis (*Psychopathological Researches: Studies in Mental Dissociation*, New York, 1902, and "The Psychotherapeutic Value of the Hypnoidal State" in the above *Journal* for 1909-1910) and J. J. Putnam (in the above *Journal* for 1911-1912, the *British Medical Journal* for 1906 and the *American Journal of Medical Sciences* for 1908) are mentioned.] Review of Reviews. Chronicle. French translations of articles in Italian and English. Series ii. Vol. xxv. April, 1919. **W. E. Harper.** 'Knowledge of the Stars obtained by Means of the Spectroscope.' **E. Rabaud.** 'Evolution et sexualité.' **Elias Lattes.** 'L'enigma etrusco.' **L. Havet.** 'Guerre sans analogues, paix sans analogues.' **H. Goudy.** 'Une ligue de Nations.' Critical Note. **A. Mieli.** 'Synthèses et visions d'histoire de la science.' [Principally occupied with Libby's *Introduction to the History of Science* (London, 1918), which does not seem to be a very valuable work.] Book Reviews. Review of Reviews. Chronicle. French translations of articles in English and Italian. Series ii. Vol. xxv. May, 1919. **G. Loria.** 'Le matematiche in Spagna, ieri ed oggi. Parte I^a: Dal secolo XVI alla metà del XIX.' **H. Thomson.** 'The Planet Mars.' **G. Bohn.** 'Une orientation nouvelle de la Biologie.' **F. Savorgnan.** 'L'influence de la guerre sur le mouvement naturel de la population.' **A. Pillet.** 'Que faut-il penser de l'établissement d'une Société des Nations?' Critical Note. **G. C. Buzzati.** 'Pour le développement de l'histoire du droit international.' Book Reviews. Review of Reviews. French translations of articles in Italian and English. Series ii. Vol. xxv. June, 1919. **G. Loria.** 'Le matematiche in Spagna, ieri ed oggi. Parte II^a: I matematici moderni.' **W. C. McC. Lewis.** 'Radiation, the fundamental factor in all chemical change.' [With regard to the very recent application of the quantum theory of radiation to chemical reactivity, 'the results so far obtained are sufficient to give very strong *prima facie* grounds for the general truth and applicability of the concept that the radiation necessarily present in material systems (in virtue of their temperature) is the fundamental source of chemical change of all kinds.'] **A. Meillet.** 'Le genre grammatical et l'élimination de la flexion.' [A study in comparative linguistics.] **A. Loisy.** 'La Société des Nations et la religion de l'humanité.' **S. Gemma.** 'Pour la création d'une Société des Nations.' Critical Note. **L. Amaduzzi.** 'Le champ magnétique comme moyen d'étude de la Physique atomique.' [On the subject of a recent book by Augusto Righi.] Book Reviews. Review of Reviews. French translations of articles in Italian and English. Index to vol. xxv.

X.—NOTE.

THE NOTION OF A GENERAL WILL.

IN a recent review of an article by Prof. Bosanquet I made some disparaging observations about the General Will. It is one of the defects of reviews that considerations of space compel a reviewer either to confine himself to platitudes or to make assertions in a rather dogmatic tone without offering adequate reasons or marking delicate shades of difference. This fact, and certainly not any lack of respect for Prof. Bosanquet, was the cause of some sentences which are perhaps wanting in urbanity. I am quite sure that, when Prof. Bosanquet or Rousseau talk of the general will, they must be referring to something real and important; but I cannot detect anything that they might mean which seems to me appropriately called by this name. And assertions are made about this general will which seem incompatible with any meaning that I might otherwise be inclined to attach to the phrase. Hence I can only conclude that the *name* is a very unfortunate one, or else that there is something highly important in human societies which may appropriately be termed a *will* but which has wholly escaped my notice. It may just be worth while for me to state shortly the difficulties that I feel about the whole notion. They are so obvious and platitudinous that they cannot possibly have escaped Prof. Bosanquet's attention, and therefore I am sure that he must have some definition of the general will in his mind which is not exposed to these objections. But I do not know what this may be, and many other people of fair intelligence appear to be in the same difficulty, so that some further explanation from him seems highly desirable.

Let us begin by considering the will of a definite Englishman, Smith, a stockbroker living in Brighton. I take it that we mean by Smith's will the complex or system of Smith's particular volitions. He wants various things at various times, and these wants and his efforts to satisfy them are events with a certain place in his mental history. When we survey them we find that a great number of them, at any rate, are connected with each other in a rational way; and this system of connected volitions, or the organising principles of the system, are what I understand by Smith's will. Now, when I talk of Smith's will, I am under no obligation to regard him in abstraction from England, Brighton, and the stock-exchange. I know quite well that each of his volitions depends upon many conditions, that they would have been differently organised if he had been born and brought up and had lived in a different society or had occupied a different position in his society. This I take to be common ground. Hence, if you were to call Smith's actual will the general will and confine the name *Smith's will* to the supposed system of volitions that would have remained the same in whatever condition Smith had been placed, it would be a truism to say that Smith's will is abstract and fragmentary compared with the general will. But this would be a very odd way of speaking. It would be equally odd to call a hypothetical will that Smith might have had under imaginary conditions

Smith's will, and to call the will which Smith actually has under the actual conditions the *general will*. Nor would the general will, in this sense, throw much light on the nature of a society of people of whom Smith is only one member. Hence I conclude that this interpretation cannot be Prof. Bosanquet's though it would account for some of his statements.

Having said what I understand by a man's will I will next consider in what sense it seems to me that a will can be called general. In the first place you might say that Smith's will was general as compared with his particular volitions. Any one of his particular volitions is certainly fragmentary (and I think, in Prof. Bosanquet's sense, though not in the sense in which I should use the word, abstract) as compared with his will. But again this cannot be the fact that Prof. Bosanquet is referring to, for he does not say that each man's volitions are fragmentary and abstract as compared with that man's will, but that each man's will is fragmentary and abstract as compared with the general will.

The second possible meaning of a general will refers to the wills of several persons. Smith and Jones may be said to will the same thing under certain circumstances. This does not of course mean that they both want the same physical object, for their wills would then be in opposition. The fact is of course that the phrase 'to want a certain physical object' is elliptical; it means to want to *possess* this object. What we will in every case is that a certain proposition or set of propositions should be true. When we say that A and B have the same will we mean that A and B both want some proposition or set of propositions *p* to be true. If A and B do not have the same will one wants *p* to be true and the other wants *q* to be true. Two possibilities then arise: (i) *p* and *q* may be incompatible, either for logical or physical reasons. Their wills are then in opposition; (ii) *p* and *q* may be compatible. Their wills are then mutually indifferent.

Now I suppose that there is a general will in a group of persons in so far as they all will that a certain set of propositions shall be true. But, if this be the right interpretation, I cannot understand how anyone can assert either (a) that the wills of various members of a group are fragmentary and abstract as compared with the general will, or (b) that the general will is an adequate account of any state that is or has been.

(a) The general will is the will of each member that a certain set of propositions shall be true. But each member also desires other propositions to be true. The object of the general will is thus a fragment of the object of any individual's will, if the general will and the will of an individual be interpreted as we have interpreted them. Prof. Bosanquet holds that the exact opposite is the fact. There seems only one way in which this could be justified. We might define Smith's *private will* as his desire for the truth of propositions other than those whose truth all members of his community desire. With this definition Smith's will (as already defined) = Smith's private will + the general will of Smith's community. Now, whilst it is impossible that Smith's will should be abstract and fragmentary as compared with the general will, it is possible that Smith's private will might stand in this relation to the general will. This would mean that the propositions which Smith desires to be true and which some other members of his community do not desire to be true are few or trivial as compared with those which all members of the community desire to be true. It is to be noted that, if this should happen to be a fact, it is not deducible from the generality of the general will or the particularity of Smith's private will; it must be established by independent observations. It might be true of A and not of B in the community C; since it depends on the extent and importance of the agreement between the members of C, and the number and importance of

A's and B's private desires. I therefore cannot see that any general rule could be laid down on the subject.

(b) I can make no claim whatever to that practical acquaintance with public affairs which Prof. Bosanquet has acquired by a long course of disinterested social service. Nevertheless I must venture the opinion that the general will in any state with which I am acquainted by observations or through history is abstract, negative, unenlightened, and dimly conscious. If I were asked: 'What propositions do all or nearly all Englishmen desire to be true?' I should be puzzled to find many beside the following: That everyone who will work shall have a certain minimum of comfort, that the country should not be invaded nor its government set at naught by those of other countries, that justice (variously understood) shall be administered, and that there shall be *some* definite rules about the acquirement, distribution, tenure, and bequest of property. Any attempt to particularise further about property would neglect the important differences between what socialists and others desire to be true; any attempt to particularise about the form of government would neglect the difference between those who want parliamentary rule and those who prefer some form of syndicalism. That this amount of agreement in what is willed by all is enough to constitute a state I cannot for a moment believe. The real driving force of a state seems to me to be the will of a governing class; this will is sometimes good and sometimes bad, but in normal times it gets itself obeyed unless it flagrantly opposes the general will of all its subjects or of any large and powerful section of them. The general will thus appears to me to be merely a negative limiting condition within which infinite variations are possible; and any complete theory of the state needs to explain these variations by other principles.

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